

HENRY J. B. McKELLOPS, D.D.S.



## State Societies and Dental Examining Boards.

By DR. V. E. TURNER, Raleigh, N. C.

It seems to be generally acknowledged that an important factor in effecting the great strides which have marked the progress of dental surgery within the last twenty years has been the legal enactments of the states, intended to control the standard of qualifications of dental practitioners, which necessitated the appointment of dental examining boards for carrying out these laws.

It is admitted that the National Association of Dental Examiners is one of the three co-ordinate organizations or forces for maintaining and strengthening the ground already gained, and supporting the efforts at higher attainments and further progress.

It is beyond all question that a combined effort in any branch of science results in a greater degree of progress than individual efforts are able to accomplish. When isolated and not in communion with one's fellow workers, progress is slow and uncertain, while a "line up" to the task imparts enthusiasm and gives courage and confidence to the weak and timid, strengthens and concentrates the forces and emphasizes the interest.

Just as the progress in dental surgery has been accentuated by the presence and co-operation of thinking and working men, who are deeply interested, so has it been in general surgery or in any of the branches of medicine.

It is not quite the same to read reports of papers and discussions, for you cannot get into the spirit of the occasion and warm up to the subject unless you have the inspiration of the interested participants in the discussions. These are the conditions which bring out our best thoughts and excite our highest ambition. But the mere fact of keeping in touch with the progress of dental surgery is not all that is required of those whose duty it is to test the qualifications of others. This is a special work and is not easily performed even by those who are well

posted in the practical as well as the theoretical, and in order to be fair and just to applicants for license, and at the same time to protect the public from incompetent practitioners, there is a certain degree of aptitude to be exercised in getting at the thought and intentions from the replies to questions which will indicate the proficiency of an applicant and his real attitude to the profession. Not having the opportunity of the dental professors who overlook the record and conduct of a student during his term of instruction, adds greatly to the difficulty of deciding his degree of competency.

Hence in this particular field we need the interchange of ideas and opinions of our most advanced thinkers, such as will bear practically upon the duties of examiners and help to determine upon such a reasonable and equitable standard of qualifications as would be in accordance with the present state of progress of the teaching in the colleges and the present status of the practice of dental surgery, and to adopt the best possible system for testing such qualifications in such questions as would develop the technical and theoretical knowledge of applicants; not merely a number of questions, but such as would present a sufficiently comprehensive range as would give a fair idea of attainment; and in such clinical tests as would demonstrate practical experience at the chair and in the laboratory.

Every state board should keep abreast with the advances along these lines and participate in the discussions and adoption of such measures as will contribute to the most intelligent performance of these important duties.

<b>Unification of State Dental Laws.</b>	In the matter of unifying the dental laws, not only the state boards but every reputable practitioner is interested; and while this is under consideration by the National Association of Dental Examiners, every state should be represented, so that this body may have the wisdom and experience of the best men to discuss this important subject so that all may be satisfied when final action is taken. The great inconvenience and annoyance which is entailed when a reputable practitioner desires to practice temporarily or permanently in a neighboring state, should be obviated.
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A licentiate from a state board which requires a thorough and "up-to-date" examination should be able to register without examination with any state board which requires the same, or its equivalent, of its applicant. Already some states have granted such powers.

But aside from this feature there are provisions in the laws of many of the states which should be so amended as to bring the laws up to the present status of the profession.

New York, New Jersey and Pennsylvania are constantly amending and perfecting their dental laws in order to keep pace with the growth and progress of the profession in all of its branches and to make it possible to have them effective. The dental enactments in many of the states have not been amended in ten or fifteen years, and in some states it is almost impossible to enforce them. The state boards should look closely into these conditions and endeavor to formulate such changes as will accord with the laws of other progressive states.

Instead of labored and harsh criticisms and the effort to ridicule or belittle the National Association of Dental Examiners, every member of the state societies should not only maintain an earnest loyalty to it but should use every effort to strengthen and support it as one of the necessary adjuncts in securing a higher plane for the profession.

To foster and build up this organization is the positive duty of every member of the state societies. They should see to it that the members of the state boards are well equipped, progressive and conscientious in the discharge of these special duties.

When a state board is content to meet only for its own examinations, ignoring the national organization, it will soon fall behind in the procession, just as a dentist who disregards the associated efforts of his fellow practitioners. And any state which is represented by a non-progressive board soon becomes the dumping ground of such men as are unable to pass the examinations of other boards.

These are the men who start dental parlors and are guilty of every species of quackery. When an incompetent and unworthy man manages to secure a license he realizes that in an open and fair competition he would have a slim chance for patronage; he adopts some device as a dental parlor or calls himself an "Association" to attract and deceive the unwary public. Having a license, the law will not reach him, and he is free to go on in his own way prostituting and degrading the profession.

The members of the state boards, standing at the door of the profession and having the important duty of guarding its highest interests, cannot afford to ignore or neglect any opportunity for acquiring higher equipment, even if this should require more labor and greater activity and responsibility. They are the trusted agents of the profession, and hold its honor in their hands, and they owe it not only to dental surgery, but to the public, to exercise the greatest vigilance.



## **History and Development of Crown Work.\***

By HART J. GOSLEE, D.D.S., Chicago, Ill.

### **I.**

Primitive Application of Crowns. First Application of Porcelain Crowns. The Use of English Tube-Teeth for Crowns. The Foster Crown. The Mack Crown. The Shell or Telescope Crown. The Gates-Bonwill Crown. The Howland-Perry Crown. The Richmond Crown. The Büttner Crown. The How Crown. The Weston Crown. The Logan Crown. The Brown Crown. The Webb Crown. Application of Porcelain to Crown Work. Various modifications of these Principles.

While dental literature as early as the beginning of the eighteenth century records instances of the application of pivot teeth to roots, the practical introduction of artificial substitutes for the natural crowns of teeth lost through accident, or by the process of caries, and the ultimate development of crown and bridgework is purely the product of the last half of the nineteenth century, and must be placed to the credit of American dentistry.

As the profession itself has from humble environments grown and broadened into a scientific calling with marvelous rapidity, so also has the specialty of crown and bridgework, the evolution of the application and construction of which forms an interesting chapter in any history of the conception, progress and advancement of all that pertains to dental art and prosthesis.

Besides opening new fields for higher artistic conceptions, it has also materially affected the general advancement of the profession, for

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at one time it seemed propitious and apparently inevitable that the latter should become divided into the separate branches of operative and mechanical dentistry, and that it would be the exception rather than the rule for the average man to attain a degree of proficiency in both branches so dissimilar to one another.

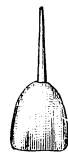
This specialty, however, then just budding into general favor by the recognition of its possibilities, and so equally dividing the labor involved between the mind and the hand, the chair and the laboratory, soon proved the fallacy of such thoughts, and resulted in reuniting these branches, thus greatly encouraging the unprecedented advance which the profession has since made.

To crown and bridgework can be attributed much of this progress, for no field in art or mechanics offers greater opportunity for the display of individual skill and artistic attainments.

The employment of these talents in any line cultivates the finer instincts, promotes a higher sense of appreciation of nature, and draws a



*Fig. 1.*



*Fig. 2.*

fine line of distinction between the tradesman or artisan and the true artist; and, in the province of dentistry, enables one to more nearly imitate, and often improve upon, the normal or abnormal conditions which lend so much to the appearance and comfort of those who might otherwise be prematurely disfigured or permanently subjected to discomfiture.

From available records the first application of "pivot teeth" is described in Fauchard's work, published in 1728, in which mention is made of a crown fastened to the root with a pivot, and which consisted of a crown carved out of bone or ivory, or one of a natural tooth, mounted upon the root with a roughened pivot of silver or gold. The interior of the root was first filled with lead, into the center of which a hole was afterward drilled for the reception of the pivot, the other end of which had been previously cemented in a hole in the crown. Fig. 1.

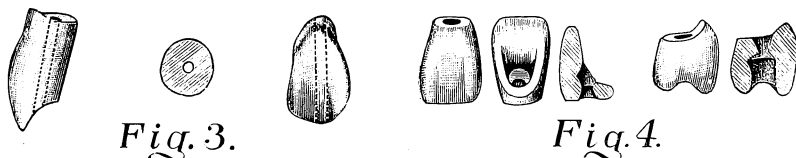
In the work of de Chemant, published in 1816, nearly one hundred years later, much reference is made to the use of "mineral paste," and a brief description is given of "a single tooth with pivot," accompanied with a crude illustration, which indicates that it was intended as a crown to be attached to a root. Fig. 2.

**Primitive Application  
of Crowns.**

**First Application  
of  
Porcelain Crowns.**

While other designs of "mineral" teeth were subsequently recorded in French literature, in which country porcelain was first applied, it was not until about 1840 that much effort was made toward the preservation of broken-down roots, or much thought given to the problem of restoring lost crowns of teeth, the prevailing and common practice having been to extract them and insert plates; or, in some instances, to grind them down even with the tissues and retain them for the purpose of preventing alveolar absorption.

About this time more progressive and esthetic ideas were conceived which resulted in the introduction and first practical application in this country of artificial crowns, in the form of the English tube-teeth, designed and previously used for plate work; they were ground to fit the root and mounted with pivots of hickory wood. This was conceded to be a marked step in advance—a revelation indeed—and proved



the formative period of that class of work which was destined to develop into such an important specialty. But the theory of the wooden pivot serving as a means of anchorage by virtue of the expansion incident to the absorption of moisture soon proved impracticable, because of the inadequate stability, and not infrequent occurrence of fractured roots as a result of the swelling of the wood, as well as the necessary presence of moisture which induced decay. Fig. 3.

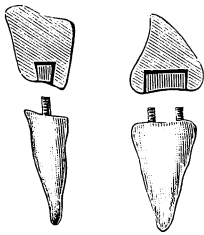
Some modifications of this method are recorded whereby effort was made to overcome the objectionable features and permit of the removal of the crown in order to facilitate the treatment of the roots, which developed into a necessity as the result of sealing them up without proper aseptic considerations.

The most prominent of these were the crown attachment patented in 1844 by Dr. J. S. Dodge, which consisted of mounting a wooden tube into the root and attaching a metal post to the crown with plastics, which fitted closely into the cylinder of wood, yet rendered its removal easy; and the design of Dr. F. H. Clark, patented in 1849 and comprising the insertion of a metal tube in the root which was anchored securely with a

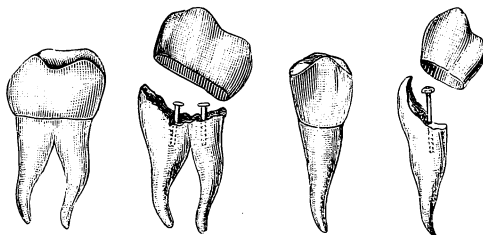
large-headed screw-pivot, perforated through the center to allow accumulated gases to escape. To the projecting or free end the crown was attached.

**The  
Foster Crown.**

Because of the tendency of these crowns to loosen in their attachment to the pivot, and the objections to wooden pivots, the Foster crown was patented in 1855, and while constructed upon almost the same lines as one designed some five years preceding it, by Dr. Henry Lawrence, it enjoyed quite an extensive use for a number of years under the former name. It possessed almost a flat base, with a perforation in the body of the porcelain so shaped as to form a seat for the accommodation of the enlarged head of a screw-pivot, by which means it was anchored securely to the root. Fig. 4.



*Fig. 5.*



*Fig. 6.*

**The Mack Crown.**

While in the former styles the dowel was first attached to the crown and then subsequently to the root, the design of Dr. C. H. Mack, patented in 1872, is recorded as the first instance where the dowel was attached firmly in the root before the crown was fixed in place upon it. The crown was constructed with a countersunk cavity in the body of the porcelain which, being filled with plastics, anchored it securely when mounted. Fig. 5.

**The Shell  
or  
Telescope Crown.**

The difficulty experienced in adapting any of the former styles to the posterior teeth in a practical or permanent manner, and the desirability of restoring and preserving their normal functions, ultimately led to the invention of the gold cap or telescope crown, patented by Dr. J. B. Beers in 1873, though probably first suggested by Dr. W. N. Morrison some few years previously.

This crown proved a great step in the line of progress and development, because the construction did not require the sacrificing of tooth



structure to the extent necessary for porcelain crowns, and made possible the better and more serviceable reproduction of natural tooth form. The seam of union between crown and root was for the first time carried under or within the free margin of the gum and apparently made the operation a more permanent success than had theretofore seemed possible. Fig. 6.

The success and practicability of this style of crown has resulted in the subsequent invention from time to time of innumerable systems and methods of construction, all of which while varying in detail accomplish practically the same end; and, while it has done much to prove the advisability of encompassing the end of the root with a band, and to a great extent made possible the ultimate success of permanent stationary bridgework, its virtues have been most grossly abused in their application to anterior teeth, and through their production in ready-made form, the use of which, in justice to the artistic possibilities within the reach of the modern dentist, cannot be too vigorously condemned.



*Fig. 7.*



*Fig. 8.*

**The** As the result of the more or less successful experiment with the Foster and Mack crowns, an improvement subsequently appeared in a style that became known as the Gates-Bonwill crown, a patent having been issued to Dr. W. H. Gates in 1875, and to Dr. W. G. A. Bonwill in 1881, covering practically the same ideas.

This crown was of porcelain, constructed with a concave instead of a flat base, and having a triangular perforation through the body of the porcelain, afforded a better and more secure means of attachment to the root, to which it was secured by means of a metal dowel which was threaded and screwed into the canal, after which the crown was anchored with amalgam. Fig. 7.

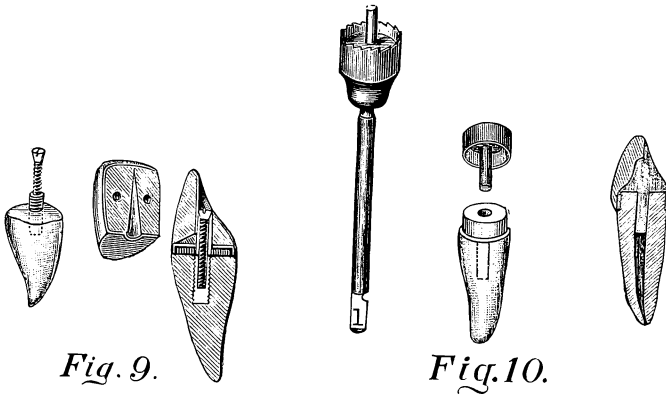
**The Howland-Perry Crown.**

Shortly after this the Howland crown, subsequently modified by Dr. S. G. Perry, and styled the Howland-Perry crown, was suggested. This was very similar to the preceding ones, but differed, like the Mack crown, in that the accommodation for the dowel was confined to a cavity in the body of the porcelain, instead of passing entirely

through it. This followed the then developing tendency toward the esthetic, by the preservation of the continuity of the exposed surfaces of porcelain, not disclosing the end of the metal dowel or the mounting material. Fig. 8.

**The  
Richmond Crown.**

This design was patented by Dr. C. M. Richmond in 1880, and consisted of a cap encompassing the end of the root, to which a facing similar to the ordinary plate tooth was attached by soldering. This was the first practical application of a band to a root for anterior crowns with porcelain facings.



As originally designed, it consisted of a band, to which was soldered a floor, forming a cap. To this was then attached a facing hollowed out between the pins so as to accommodate a threaded dowel which, passing through the cap, was then screwed into a tube previously mounted in the canal, thus attaching the crown to the root. Fig. 9.

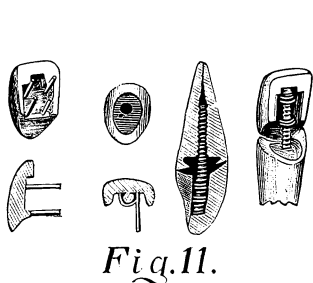
While it was then for some time a matter of doubt and conjecture as to the advisability of banding the anterior teeth, and as to whether it was an objectionable or an advantageous procedure, the original principle was soon abandoned because of the intricate and unstable manner of attachment, and the apparent uselessness of a separate dowel, but the modifications and improvements resulting from this suggestion are now conceded to be the best means of securing permanence in the operation, and are the accepted practice of today.

**The  
Büttner Crown.**

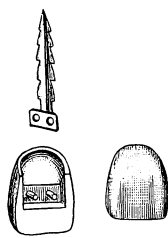
During the early agitation of the feasibility of banding, Dr. H. W. Büttner invented a metal and porcelain crown with a band wherein the method employed in attaching it to the root would possess the advantages of a band, and at the same time preclude its possible irritating influences.

This was accomplished by trephining the periphery of the end of the root to form suitable accommodation for the band, with instruments specially devised for the purpose, but the idea never met with universal favor, and it was soon abandoned. Fig. 10.

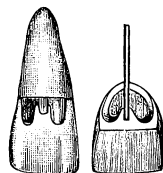
This crown was devised by Dr. W. S. How in 1883 and consisted of a thin facing with four pins and a slotted back for the reception of the "screw-post," which was anchored to the facing by bending the pins over it after it was backed up, and then building the contour as desired with solder. The extreme thinness and consequent weakness of the porcelain contributed to its limited usefulness. Fig. 11.



*Fig. 11.*



*Fig. 12.*



*Fig. 13.*

Another similar form was invented by Dr. Henry Weston in 1883 and subsequently modified. The first design comprised a means of attaching the dowel to the facing, which is best described by the illustration, after which it was attached to the root. Fig. 12.

In the modification the dowel was first securely fixed in the root and then the crown which was constructed with a view of being much stronger, was held in contact with the root, and anchored by packing through an opening for the purpose, on the lingual surface. Fig. 13.

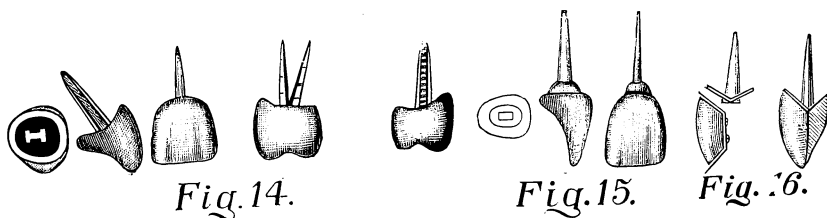
It will be observed that up to this time the various steps in the development of the work consisted of a crown and dowel as two separate parts, but here a deviation in the principle was made for the purpose of securing additional strength, in which the dowel became an integral part of the crown by being baked in the body of the porcelain.

This crown, the first to be so constructed, was the invention of Dr. M. L. Logan, patented in 1885, and made with a large body of porcelain having a concave countersunk base to facilitate adaptation to root, and a dowel shaped more in line with scientific principles. More nearly approaching

the requirements in conformation than any of its predecessors, it soon became very popular, eventually supplanting all other designs of similar nature, and for years has had an extensive use and application. Fig. 14.

Another design was shortly afterward evolved and introduced by Dr. E. Parmley Brown, and while of the same type, it possessed a base convex, instead of concave, with a view of affording by means of its construction, the greatest possible strength at the seam of union between crown and post, and crown and root.

Its adaptation to the root after cutting it down properly was made by using a bur which produced a concavity, to accommodate the convexity of the base of the crown; but the increased strength of the crown being secured at the expense of the root, soon resulted in its abandonment. Fig. 15.



The difficulty of grinding one surface to closely approximate another, and the conceded advantages of a close union between crown and root, soon stimulated a desire to secure better adaptation, and resulted in the suggestion of a plate and dowel crown probably first used by Dr. M. H. Webb.

This was constructed by swaging or burnishing a metal plate to the end of the root, then perforating it to admit of inserting into the canal a dowel, which was soldered to the plate, to which the facing was then attached. The possibilities of adaptation and its advantages have become so recognized that many still so construct their crowns, and they are frequently indicated. Fig. 16.

Soon, however, the advancement of the profession along those lines leading to the achievement of the very highest conceptions of art, indicated a tendency to observe the maxim "true art is to conceal art," and created a desire for something that might supersede the use and display of gold, something more nearly resembling and harmonizing with nature, yet, still serving the same purposes. Even in this the inventive genius of the profession was not long in again asserting itself, and soon afterward came the suggestion and application of vitrified porcelain.

The first were perhaps made by Dr. C. H. Land, and were eagerly sought and enthusiastically applied with varying degrees of success and failure. Dentures of platinum and porcelain had been constructed and worn successfully for years, hence it was readily believed that crowns and bridges of the same must also of necessity be equally successful. In this, however, many were doomed to disappointment, and because of inadequate knowledge of the requirements, too much confidence, and the over-zealous enthusiasm of early advocates, its use and practicability soon became questionable, and was eventually discontinued by the great majority.

There were those, however, who, still admiring its esthetic beauties, and having faith in its possibilities, set about to ascertain the causes of failures, and the reasons for success, with the result that its more recent and modern application has approached and made possible the very highest degree of perfection in dental art and prosthesis. Yet it is not universally applicable, and will never supersede the use of gold. The success of each must always depend in a great measure upon the sound reasoning, good judgment and skilful execution and discrimination with which they are respectively applied.

It will be observed that, from the very beginning, the innate and intuitive desire for the practical and esthetic development of this work to more perfectly meet the demands and requirements of the times, has resulted in the presentation of many varied principles and methods, among which may be also included the jacket crowns; the application of porcelain facings to shell or telescope crowns; the Logan crown with the addition of a band; the various modifications of the porcelain crown with separate post, such as the Davis crown; the interdental band, suggested by Dr. B. J. Cigrand, and a galaxy of other varying and ingenious ideas. Yet they are in the main but modifications of the original principles enumerated, and, while aiding materially in the evolution, and showing the trend of the development and progress of crown work from its inception, their individual description would be redundant and unnecessary.

Those of practical value, use and application at the present time can be treated to better advantage elsewhere than in a brief résumé of the development and history of this work, which is intended only to show the perseverance and ingenuity of our predecessors, and the various steps in making possible the success of modern crown work, for which their efforts were primarily responsible.



## **Models in Orthodontia.**

By THOMAS B. MERCER, D.D.S., Minneapolis, Minn.

The September (1900) ITEMS OF INTEREST contains an editorial entitled "Models in Orthodontia," which seemed to me to strike one brilliant harmonious peal of "sweet bells (long) out of tune." It was terse, it was right to the point, and rather led one to expect an awakened interest in the value of good models.

The March number of the same magazine, however, gives first place to an article in which the author covers some four or five pages in an effort to excuse his faulty model work by quoting the non-importance of good models, scarcity of time, lack of precedent and the utter emptiness of orthodontia in general as compared with the mighty problems presented by a case of crown and bridge work.

In regard to faithful model work, my defense, and that of my co-workers in this field, assumes about the tone and sincerity of a creed. It is believed that the plaster model, made from plaster as an impression material, is the very head and front of everything pertaining to orthodontia.

It is believed that careful and conscientious model work has done and will do more towards a comprehensive understanding of orthodontia, the solution of its many problems and the exploding of its innumerable fallacies, than any other factor it would be possible to include.

The plaster model is primarily a record, but its chief value is outside of this sphere of use. There are those who have long since admitted the influence of the occlusal planes and who believe that in the correction of a case of mal-occlusion, both arches should be brought into such a position as to establish occlusal harmony. To such persons it is a study and a guide.

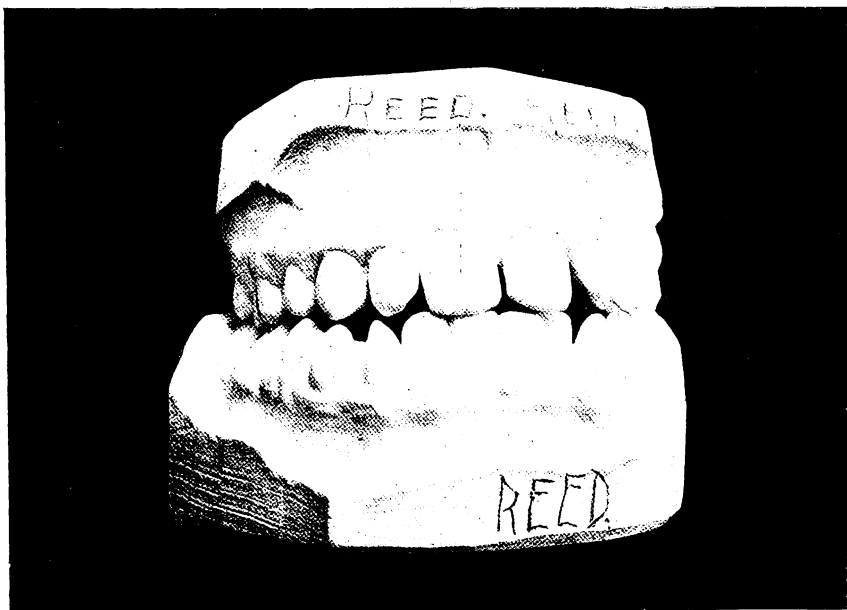


Fig. 1.

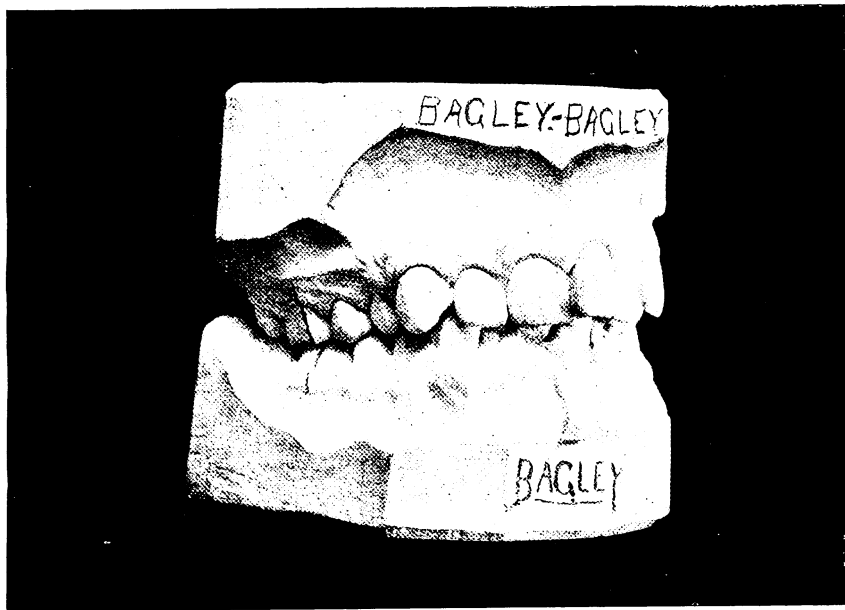


Fig. 2.

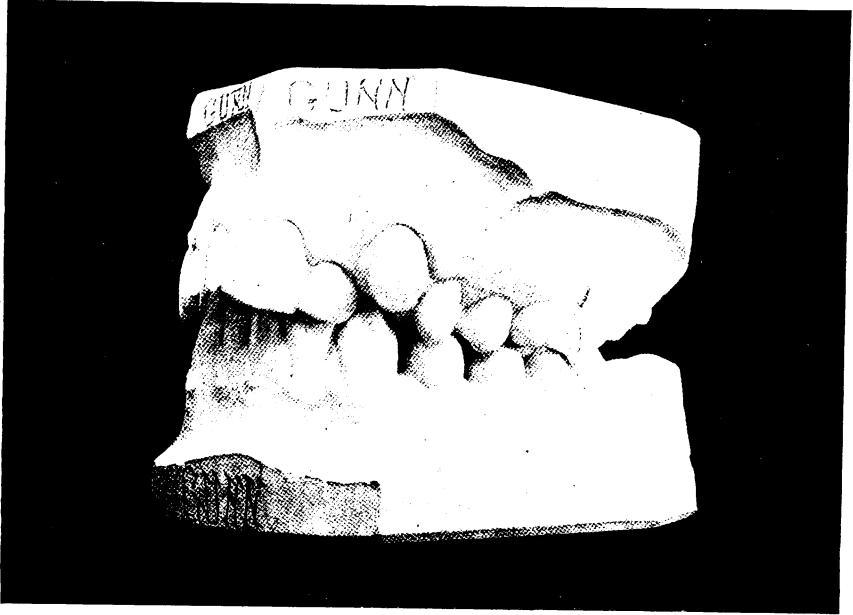


Fig. 3.



Fig. 4.



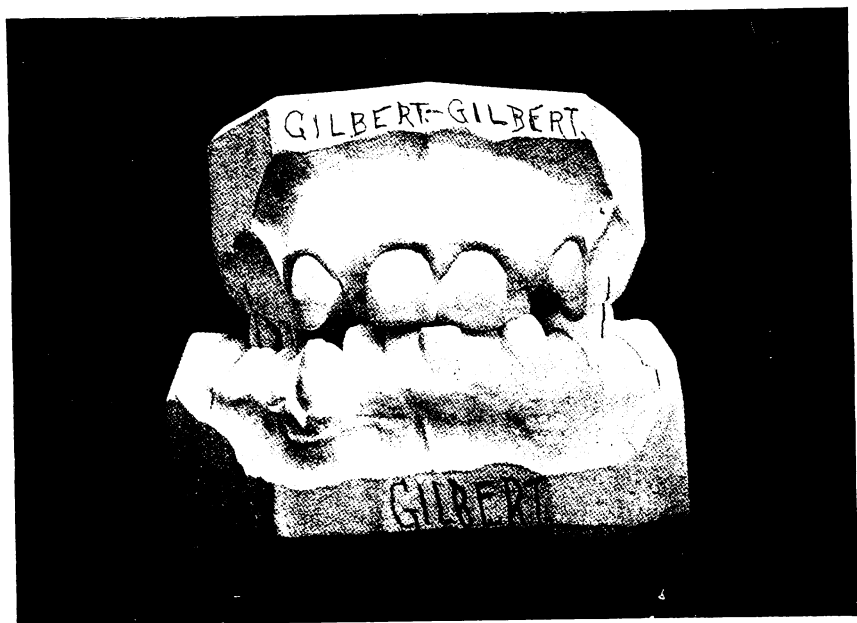


Fig. 5.



Fig. 6.

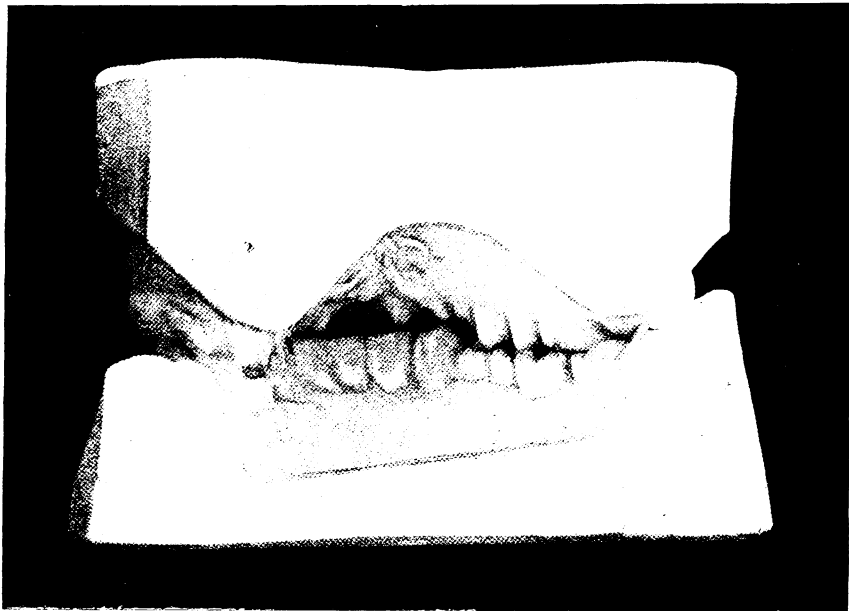


Fig. 7.

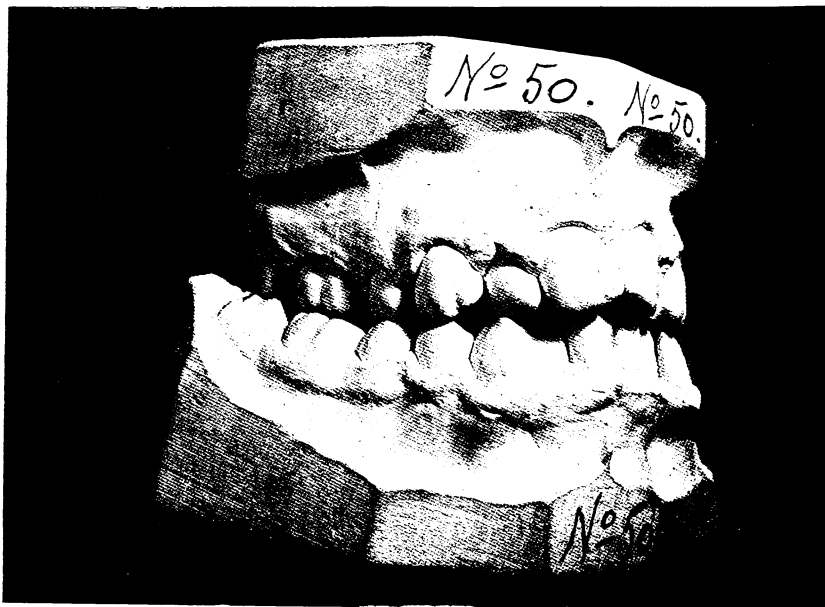


Fig. 8.

There are those also in this work who are curious to account for the many knotty coincidents that are presented; such as the connection between a high vault with protrusion of upper incisors and mouth breathing; or a better reason for the corresponding retrusion, or lack of development often found in the lower jaw in mouth breathing, where there is a protrusion of the upper jaw; or is mouth breathing, viewed from the standpoint of degeneracy, a cause or an effect; or the difference between the primary structure of bone and the secondary

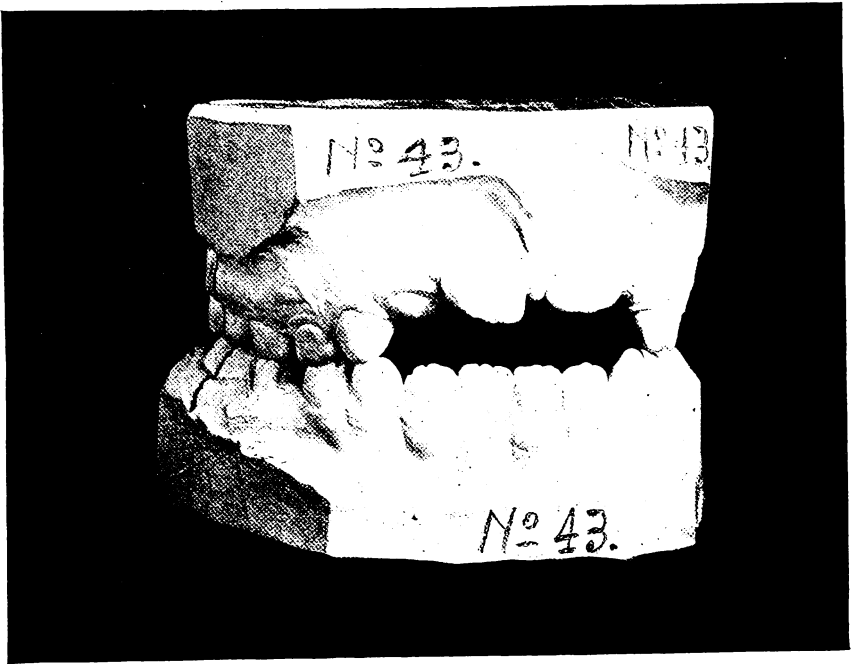


Fig. 9.

deposit incident to tooth movement, and so on almost indefinitely. Perhaps after wading through the literature on the subject, it is not found to be entirely complete in every respect, and in their curiosity they are driven to research and investigation on their own account; and research work in orthodontia finds its beginning necessarily in the accurately reproduced plaster cast.

A careful study and a comparative survey of even a very small collection of models will then seemingly force the following conclusions:

That in order to intelligently analyze this science, it must be considered as a part and not as a whole; or in other words, a classification is necessary.

That it is only by a comparative study of a large number of these models or records that enough distinct characteristics may be recognized to make a general classification possible.

That it is only by a comparative study of a large number of these models, and a knowledge of the gathered data relative to the same, that we may hope to make *any* accurate deductions.

As a beginning in this line of thought, the writer has for some time in his small way questioned much that the text books tell us in regard to the etiology of mal-occlusion. With this as a hypothesis and the Angle Classification as a basis, a systematic gathering of data has been begun, each pair of models having its history; and it is earnestly hoped that in "some yawning aeon yet unborn" much of value may be established.

There will be found, no doubt, many who will oppose such attention to detail and scoff at such an undertaking, but things seem now to indicate that any man devoting himself to a special calling must know it "from the ground up;" not only as a matter of personal security, but as a commercial proposition as well.

The real purpose of this article, however, is not to flaunt ideas, nor is it meant in any way as a challenge; but simply as an expression of regard for good model work, and as a plea for the half tone process in illustration.

The accompanying illustrations are made from photographs taken with a view to half tone reproduction.

The models were all made from plaster as an impression medium. Attention is called to the reproduced developmental lines in the enamel; to the stipples along the gum margins; to the attachment of the frena labiorum and buccinator muscles; and to the general plainness and accuracy of detail. Figures 1 and 8 illustrate the vicious consequence of extracting a superior bicuspid on either side and allowing the teeth to "straighten themselves."

Figure 9 illustrates an abnormally developed *frænum labii* in a little girl of seven. When the teeth have erupted sufficiently to hold bands, this fibrous cord will be operated upon and the teeth drawn together.

# SOCIETY PAPERS

## Porcelain Inlays.

By W. A. CAPON, D.D.S., Philadelphia, Pa.

*Clinic before the New Jersey Southern Dental Society, February, 1901.*

I feel flattered to be introduced so kindly, and glad that my reputation has reached across the Delaware to Camden. I will endeavor to make the meeting profitable by using a portion of the inlay idea. The trouble is there are so many points that it is very difficult for me to know where to start, or just what you would like to see first. I have been asked to tell how I burnish the matrix, the kind of material used, the preparation of the cavity and other points that come up in connection with these ideas. I do not know how many of you are versed in this work or know anything about it, and I do not know just where to start to make it interesting.

**Dr. Duffield.**

You might better start from the very beginning.

**Dr. Capon.**

Well then I will start from the very beginning by showing a cavity, the simplest I know of, and this specimen will show it in a completed form; the corner of the same tooth is a great deal more difficult. The specimens that you may look at tonight have been done some time, in fact many of them were made several years ago, and you must make allowance for them, as they are dried, and because of my indifference in trying to shade an extracted tooth.

The tools required for this work are a couple of burnishers and a couple of rubber tipped pencils. As we are working under difficulties I will first burnish the foil in the easy cavity I have already shown you; it is a little deeper than you will usually get in a living tooth and being deep there will be only the merest suggestion of a bottom to the matrix, a point that I wish to show you will make no difference to the fit or finish of the inlay.

The preparation of a cavity has, I think, much to do with success. I make the walls square similar to the preparation for gold, with the important exception that edges are left as square as possible. If you will run your finger over the edge of it you will find it sharp, and that

is my guide, you can feel the edges of this prepared cavity. To accomplish this I use an inverted cone bur, or a barrel bur, and very frequently a small square edge stone.

**Question.** Do you use the sandpaper disk?

**Dr. Eapon.** No, I never use sandpaper at all. With sandpaper you have to be very careful or else you will round the edges, and that is what you must avoid.

Many dentists have read about the Jenkins system and have become taken with the idea as he uses it; then they get his method and what I am showing mixed up and so get into trouble. Dr. Jenkins's method I may say is entirely different. In the first place the bottom of his cavities are smooth and rounded, he uses gold for a matrix instead of platinum, the impression must not have the slightest break and then it is invested in powdered asbestos. The porcelain is very low fusing, otherwise gold could not be used.

I recommend and teach the use of platinum and high fusing porcelain body and I know of no better standard than Close's continuous gum body that has been used for that purpose for many years.

**Question.** Do you use water or alcohol to mix the body?

**Dr. Eapon.** Water.

**Question.** What is the heat required to fuse Close's body?

**Dr. Eapon.** I think about 3,000 degrees. I see Dr. Spring in February *Cosmos* says 2,600. I think he is mistaken and his figure too low; maybe he is alluding

to porcelain for repairing of continuous gum. Now this little matrix that I first made has no bottom at all, but that will make no difference if I am sure the body sticks to the sides. After placing the body in the matrix it takes a good deal of tapping to get a smooth surface if the body is mixed very still and thus avoid shrinkage. This is a point I know is not generally considered.

**Question.** Do you generally dry out moisture in small work?

**Dr. Eapon.** I usually put them right in the furnace, but use more care with large sections and crowns.

Before trying the inlay in its place, trim the excess of metal from the edges and thus allow a better idea of the outlines of the filling and simplify matters when burnishing the second time.

Every inlay or section is most likely to slightly extrude from the edge of cavity; a piece of floss silk will show this; then take a small narrow stone and dress it even after the cement has hardened. If the

inlay is a little lower than the tooth, that is more desirable than the reverse.

**Question.** How do you know when it is right before the material is fused?

**Dr. Capon.** As there is always some shrinkage, you have no guide but that gained by practice.

**Question.** How do you separate the metal from the porcelain?

**Dr. Capon.** Always turn it away from the edges. There used to be all kinds of suggestions regarding the removal of the small pieces remaining on the back, and acids have been recommended, but an old discarded bur will remove the smallest remnant very readily.

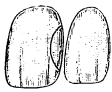
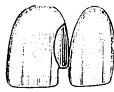
The approximal cavity in anterior teeth is a very desirable place for porcelain, but porcelain in a finished form is an unyielding block and therefore requires plenty of space for ready adjustment, also for easy withdrawal of matrix from cavity; in fact the withdrawing of the metal form is the most difficult part of making an inlay for these places, and it must be tried to properly understand these instructions.

Before burnishing the metal to its place, consider which surface is the most accessible and draw the matrix from that side; if lingually burnish that surface as correctly as possible, but the labial surface is only burnished sufficiently to give the edge of cavity without flattening the metal to surface of tooth, thus allowing it to be taken from its place without changing the form of the main body of the mould. After the first baking there is not the same difficulty to contend with, for then the matrix is rigid and the excess of platinum has been removed. This is a very practical point and will be of great assistance in many cases. These approximal fillings are very desirable and very durable. There is no wear to them, you cannot wash them out and they are not interfered with in any way and why in many cases they are not the very best I cannot understand. Of course I speak with a great deal of confidence, but I have had many years of experience, and to illustrate I will show a case I did nine years ago; this is not the oldest, for I have several in splendid order after almost twelve years, but this one I consider a test.

Fig. No. 1 shows a filling on the distal surface of left central and the lateral, an artificial crown. After four years the patient, a young physician, went to Germany to complete his studies, and while there became acquainted with Dr. Sylvester, the Court dentist, who looked at the work and ridiculed the idea that the porcelain was

held entirely by the cement, and insisted that it would soon fall out. My patient returned to America and settled in Scranton, but unfortunately soon after his return he broke the lateral crown and the lower corner of the central, Fig. 2. Being a long distance from me he had the lateral replaced with a Logan, but would have nothing done to the central, preferring to have another porcelain filling when the opportunity came for a visit to Philadelphia. I replaced it a few weeks ago, also the lateral, but I will speak of the crown later in the evening. Fig. 3 will show the central as it was repaired the second time.

How I wished that dentist in Berlin could have been at my elbow when I took that old filling out? Perhaps he would have changed his mind about the way that piece of porcelain was being held, and this was five years after and two of that five the lower part of porcelain exposed to the general use by loss of the rest of its cutting edge.

*Fig. 1.**Fig. 2.**Fig. 3.**Fig. 4.**Fig. 5.**Fig. 6.**Fig. 7.**Fig. 8.*

I used a small round bur between the lower edge and the tooth and then forced it out with a blunt instrument, and the force required was sufficient to send the remains several feet away. The last and one of the most important points of this case was to find the cavity nicely lined with cement and not the first tendency to decay, or deterioration.

I shall now give you an idea on corners and cross sections and their attachments. Suppose we have a central broken as shown in Fig. 4. It is generally considered the proper way to trim them as in Fig. 5. I have found that after a year or two where porcelain is thin on the cutting surface, it breaks away, leaving a little nick as in Fig. 6, just large enough to be noticed and too small to repair, yet sufficient to mar what is otherwise a nice piece of work. I have overcome difficulty to a great extent by preparing the cavity very much like Fig. 7, which gives a greater body of porcelain at the weak spot. The cavity so shaped is a little more difficult to make a matrix for, because



the angles are more difficult to burnish than straight edges or curves. This is a little idea worth bearing in mind, and saves that little nick.

You ask me the question, "How I attach these corners and sections. Do I use wire or pins?" I use all porcelain when I can, otherwise I prefer wire in form of loop or staple. My preference is for all porcelain, and I mean by that porcelain extending into the cavity as far as possible and undercut deeply. There is a weak spot where the wire is imbedded, and that is on the lower point of wire next to the cutting edge as shown in Fig. 8. The porcelain is likely to break away at the point designated by the arrow. However, wire must be used in many cases and excellent results may be had by working carefully. Prepare cavity and make edges perfectly square and sharp, then burnish platinum foil, about No. 50, over surface and into cavity or slot, for in many cases it is not much more; then make a staple or loop like Fig. 9, from platinum wire No. 24, and push it through opening in the matrix, keeping both in position on the tooth. Mix porce-



*Fig. 9.*



*Fig. 10.*



*Fig. 11.*



*Fig. 12.*

lain with water and a little tragacanth, into a stiff paste, and force about ends of wire and over surface of matrix; absorb excess moisture with a pellet of bibulous paper, and gently lift from tooth and fuse in furnace. This will firmly attach the wire in position, and the foundation is assured without soldering and in a quick manner. The ends of wire projecting into porcelain should be serrated. Wire has advantage over pins in being less liable to displacement. When the contours are completed they will appear as in Figs. 10 and 11.

Many of my successes are corners and tips, and my oldest piece of porcelain work is a large central corner without pins. That work was done in December, 1889, and it is in splendid order today, for the lady is one of my regular patients. The inexperienced are often tempted to build on a narrow cross section caused by abrasion or a slight break, something as shown in Fig. 12. Such cases are not likely to be satisfactory. I had a lady patient from Washington about a year ago who had her central tipped with gold and wished it replaced with porcelain. The gold work was nicely done, but of course conspicuous; the gold also made the enamel dark along the edge. I explained to her that I could fix it with porcelain, provided she allowed

me to shorten the tooth and make a deeper foundation; this I did and avoided sensitiveness by using ethel chloride spray. I made a tip and attached with wire staple. It resembled Fig. 13. The change from gold to porcelain was a great improvement and I have no doubt will give every satisfaction. Yes, I use chloride of ethel very frequently and to great advantage and have no bad results afterwards.

Early in the evening I spoke of replacing a Logan crown, Fig. 3, by a porcelain jacket crown, the greatest crown in existence, a broad statement, no doubt, but you will more readily believe me when I say that my records show almost a thousand in use, and in places impossible for other crowns to be used. However my time is limited so I shall only mention a couple of cases and describe the way the crown is made. The first interesting case in practice I described in the *Dental Cosmos*, April, 1891, more fully and with illustrations in *ITEMS OF INTEREST*, April, 1895.



Fig. 13.



Fig. 14.



Fig. 15.



Fig. 16.

This crown I wanted to replace was defective in shade and fit, but as firm as possible. I did not try to loosen it, but simply cut the porcelain down the middle with a disk and forced the two halves apart with a flat instrument, leaving the pin protruding as in Fig. 14. I usually build down to the point with amalgam, and make a dummy tooth, but in this case I had not time, or at least the patient had not, therefore I took extra pains to fit it closely at the neck about edge of the root and I have not any fear of his returning with it in his vest pocket; at least if he does it will be a new experience. My confidence is in the crown, not in my own ability; make it correctly and the results are surely satisfactory.

**Porcelain  
Jacket  
Crown.**

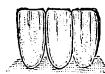
This crown is made by fitting a platinum band, No. 30, to the root or prepared tooth, as with gold cap work, except that the joint must overlap instead of abutting at the edges. The lingual and labial outlines of adjacent teeth are marked on the

tube as a guide to grind those portions away, to gain shape, instead of cutting with scissors. Fig. 15.

The lingual side is shaped with wheel on lathe, and a piece of same gauge platinum soldered to fit that portion, with a very small

quantity of pure gold. Fig. 16. After trimming to the root, the labial surface is ground thin enough to burnish and fit over the tooth. Fig. 17. A thin veneer is fitted and held in position by the porcelain paste, carefully dried and fused in the furnace. The crown is now fitted in the mouth and requirements noted, such as proper size, shape and thickness, and just where more body is wanted. If the surface of veneer requires grinding it should be done at this stage, so that it will be glazed again by the last heat. After final baking the platinum should be polished and the crown is ready for adjustment, using thin cement and very gentle tapping with a pine stick. The crown should fit easy, as there is danger of breaking the thin porcelain on sides of the crown, or even checking the veneer itself.

The joints are lapped and made as close as possible, so that great and repeated heating will not entirely destroy the solder; excess of solder will flow over the surface of the platinum, causing porosity and destroying the adhesion of the porcelain. The lingual surface is

*Fig. 17.**Fig. 18.**Fig. 19**Fig. 20.*

ground thin to give shape, so that there may be two flat surfaces to hold solder. When finished it gives the proper tooth contour. Fig. 18.

This crown has great possibilities, and for your benefit I will use one more illustration. A lady presented herself for treatment over nine years ago, having a malformed left lower incisor. Fig. 19. She had been to several prominent dentists and all said that nothing could be done; she finally was recommended to me and I corrected the deformity in one sitting by using the jacket crown, which she wore up to last year when the root loosened and exfoliated; then when it was too late for treatment she came back to me in great alarm, but too late and now it is one of my specimens. You may examine it and note that the crown is in excellent order and good for twenty years, if the root had done its part. You will see by the diagram that natural space was too narrow for a normal appearing substitute. This I overcame by trimming the teeth on both sides, and I find upon examination that no harm was done in all those years. Fig. 20.

## Central Dental Association of Northern New Jersey.

### Twenty-First Annual Meeting and Banquet.

The twenty-first annual meeting and banquet of the Central Dental Association of Northern New Jersey was held at Davis's Parlors, Newark, N. J., on Monday evening, February 18, 1901.

Response to the first toast of the evening was made by the president, Dr. Sutphen.

#### Our Twenty-First Year.

We are celebrating tonight the twenty-first anniversary of our organization and we are justly proud that for twenty-one years we have maintained a society, commenced in the humblest way and gradually developed until at the present time it stands, to say the least, second to none in the country for the number of meetings held, the average attendance of its members, the high standard of its essayists and the general good feeling and harmony existing amongst its personnel.

A bit of history may not be uninteresting.

In February, 1880, a circular letter was issued by the Secretary of the New Jersey State Dental Society, Dr. Charles A. Meeker, to the dentists of the northern part of the state, inviting them

to attend a meeting at the office of the late Dr. Worthington Penney, on the 28th day of February, 1880, at 8 p. m. There was this significant clause in that historic call: "The feature of social co-mingling and better acquaintance of brother dentists is a matter of no small importance to be taken into account." This sentiment has ever been considered as one of the archstones in our structure.

The meeting was held on the above date, and the Central Dental Association of Northern New Jersey was duly organized. Its sessions



HERBERT S. SUTPHEN, D.D.S., Newark, N. J.  
*President.*



FRANK G. GREGORY, D.D.S., Newark, N. J.  
*Vice-President.*



N. M. CHITTERLING, D.D.S., Bloomfield, N. J.  
*Secretary.*



CHARLES A. MEEKER, D.D.S., Newark, N. J.  
*Treasurer.*



J. W. FISHER, D.D.S., East Orange, N. J.  
*Member Executive Committee.*



FRANK L. HINDLE, D.D.S., New Brunswick, N. J.



C. W. HOBLITZELL, D.D.S., Jersey City, N. J.



P. G. VOEGTLEN, M.D., D.D.S., Madison, N. J.



J. S. VINSON, D.D.S., Newark, N. J.

Executive Committee.

were successful from their inception and the membership and interest increased with each meeting. These were held at the offices of the various members, and an appropriation of ten dollars was made from the treasury to provide a modest repast at the close of the meeting. This continued until the members outgrew the confines of any single office and the rooms of the Board of Trade were secured. Up to this time the interest had ever been on the increase, but shortly afterwards—to be accurate, after the first cycle of seven years had passed—the interest seemed to lag, and for a couple of months discussions were rife as to whether it would not be wise to change the time of meetings to every two or every three months. At last from the fertile brain of its inceptor was suggested and maintained by convincing argument the idea of a dinner to precede each meeting. This was immediately accepted and arrangements made with the late Mr. Simon Davis to provide such a dinner. Again interest was kindled and has continued to the present time and guests from surrounding cities have more frequently and in greater numbers attended our meetings as time has passed.

Time and the presence of able speakers to follow will not allow a further display on the part of your retiring president. Suffice it to say that for the fourteen years of our present methods we have endeavored to present to our members and friends anything and everything tending to the advancement of our mental, professional and financial standing, and have spared no pains, labor or expense to have New Jersey in the vanguard of the profession.

In so doing let me, my dear fellow members of the Central Dental Association, most sincerely thank you for the great honor you have conferred upon me by selecting me for your president for this auspicious year, and I assure you that I will ever cherish in my memory fond and proud recollections of this year.

To members and guests alike I would give my thanks for the hearty numerical support and ready sympathy manifested at all our meetings.

And finally, with the last words I can ever utter as the president of the Central Dental Association (for no one can be its president but once), I wish you a Godspeed, continued and increasing usefulness, and world-wide recognition of services rendered in the advancement of our chosen and beloved profession. (Applause.)

I now have the pleasure of introducing to you  
**The President.** an honored member of our profession, president for a number of years of the New York State Dental Society, ex-president of the National Dental Society, and one always active in everything pertaining to the advancement of our profession, the good of its members and the welfare of the community in which he re-

sides. I take great pleasure in introducing to you Dr. Burkhardt, of Batavia, N. Y.

Dr. H. J. Burkhardt responded to the toast

### **Success in a Country Town.**

It seems most appropriate that I should be asked to respond to the toast, "Success in a Country Town," when I recall that not only this year, but for a number past, I have been favored with your cordial invitations. The largest measure of success for any man to attain is to be placed upon your family list and royally welcomed to your reunions, which are so proverbially hospitable and so full of good fellowship that you have justly become famous for doing things "to the Queen's taste," wherever a Jersey man, a hornet or apple-jack was ever heard or dreamed of. The largeness of your hearts has often been evidenced by the lavishness with which you shower favors upon poor innocent countrymen who, but for your generosity, would still be in seclusion and feast on pork, cabbage and potatoes, and console themselves by frequent cracks at the cider barrel. It has been truly said that "it is better to be born lucky than rich." As I am both, you may consider yourselves fortunate in having so distinguished a guest.

The attractiveness of your entertainments, the wealth of stories gathered for distribution in the country, the opportunity to ride on trolley cars and ferries, see the sights with the boys and get pinched, are enough to force anyone from seclusion; but there is a still more potent factor in bringing some of us here, and that is from a feeling of commiseration and sympathy for the poor, battered and weatherbeaten Jersey man, because for some reason since the organization of your Board of Examiners, you have been the mark for the fat wit of every sorehead in the country. It is said that a hit bird flutters, so I am firmly of the opinion that at some time or other the hornet must have worked in his stinger, broken it off and left it there. As you are not alone in receiving the gratuitous attention of some eminently respectable gentlemen and finding myself in need of a little consolation, I felt it my duty to come here tonight, and by liberal draughts upon your sympathy and good cheer, endeavor to "lift the pall of gloom and wipe away the tear of grief."

Of late my own board has been honored by the kind and disinterested attention of gentlemen who, with a beauty and grace of diction rarely equaled and never excelled by any one outside their charmed circle, chide us for some things we have done, but largely for things we have not done to please them and for acts performed by the printer's



devil, who on account of our close affiliation with him should have been under better control. It is a fortunate circumstance that thus early in the new century we are brought to a realization of the gross ignorance which prevails in our ranks, outside the institutions of learning, and to be made conscious of the fact that as soon as one leaves his alma mater he immediately forgets what has been forced into his poor brain and is only fit for the shambles. Of course, there are a few acknowledged exceptions to this rule, particularly when an examiner assists in raking some badly scorched chestnuts from the fire. Then he is the friend of the oppressed.

I am told that you were foresighted enough to secure the enactment of a statute which forbids any of your examiners using a quiz compend or set of questions, except those duly and truly prepared and approved on account of their correctness in dealing with a particular subject, and especially for their literary merit, because the rules governing preliminary requirements are so rigidly enforced that none but the most highly educated are now matriculated. I am also told that where a disagreement exists between professors in different schools on some particular subject, when the matter is brought to your attention you immediately shape your questions to conform to those twisted teachings. They say New Jersey always puts her best-looking, most decorous and most distinguished citizens on the board. This is done to make a good impression upon the candidate, so that after he submits you to that sizing-up process to determine what manner of men are to be his future associates, you will not shudder when he renders his verdict.

That is another evidence of your bigness of heart, but there are charges against you which all this goodness cannot efface. They say you stick together, and that once upon a time some of you gave some answers to questions at a society meeting which ought to have been securely locked in the star chambers wherein we do business. For myself I am glad you stick together enough to entertain us so nicely every year, and for the publication of those answers you deserve a crown of glory, because no other act of your board or any other, has had a more stimulating effect, or been the cause of a great number of lazy bones getting a hustle on themselves in an endeavor to teach students, so they would not make such spectacles of themselves again. It has been said that the examiners are not competent to frame questions which will bring out the knowledge of a graduate. Mistakes have undoubtedly been made, but, as Dr. Jarvie has well said: "Examiners are more competent to determine the value of college teaching than the lecturer himself, because all good examiners should be good dentists, and it is the practical application of the knowledge received in the col-

lege which determines the fitness of a man to practice in a satisfactory manner." The reputation of dentistry and its high position today was not made within the walls of any college. To the good, honest practical work of the pioneers of dentistry, outside of institutions of learning is due the credit for placing the profession on an imperishable foundation. The glory of dentistry is not in saying but in doing things. The unfitness and manner of selecting members of the Board of Examiners is a favorite theme for discussion, but until a school of dental pedagogics is organized for the graduation of college professors it will be as well to pass the subject without much comment.

**Qualification of  
Examiners.**

In the minds of a large majority of the profession members of examining boards are considered quite the equal of members of the college faculties, and why should they not be? With our facilities for experimentation, accuracy of records of operations, control of patients, and ease of obtaining the latest books, we are placed on a nearly equal footing with those connected with the schools. Barring the divine quality which is said to be lacking in examiners, they are in position to acquire the same knowledge as their more fortunate college friends. When a vacancy occurs in a faculty, the wise dean does not select a man on account of his literary qualities, or ability to talk wisely on some occult science, but because he is a competent practical dentist, and this is strikingly illustrated by a recent remark of the dean of a leading university in this country, who asked me if I knew where he could find a man in active practice to take the chair of operative dentistry in his college. Instances are rare where, when vacancies occur, the assistant professor is promoted. Almost invariably a man is selected from the ranks, and the brightest college men today were primarily good dentists, and might have been eligible for the examining board if fate had not decreed otherwise. It is unfortunate that spasmodic outbreaks against examining boards and dental laws in general are so often forced upon us, because no real good comes of immoderate, unjust and unfair criticism. It tends to keep alive a feeling of resentment and bitterness which should not be tolerated. There has been criticism galore of everything examiners have done, and the inevitable conclusion must be that they "will be damned if they do, and damned if they don't." The only purpose discernible in the immoderate and unfair attacks is not to help us to improve our methods, but to try and drive us from the face of the earth. The striking modesty of these mouth-pieces of discontent is always in evidence, and a perusal of and prayerful meditation over a few stanzas which I shall read might have a quieting and salutary effect upon their inordinately brilliant minds.

I love the man who knows it all,  
 From east to west, from north to south;  
 Who knows all things, both great and small,  
 And tells it with his tireless mouth;  
 Who holds a listening world in awe  
 The while he works his iron jaw.

Ofttimes in evening's holy calm,  
 When twilight softens sight and sound  
 And zephyr breathes a peaceful psalm,  
 This fellow brings his mouth around,  
 With its long gallop that can tire  
 The eight-day clock's impatient ire.

His good, strong mouth! He wields it well!  
 He works it just for all it's worth,  
 Not Samson's jawbone, famed, could tell  
 Such mighty deeds upon the earth;  
 He pulls the throttle open wide  
 And works it hard on either side.

Up hill and down, through swamp and sand,  
 It never stops; it never balks;  
 Through air and sky, o'er sea and land,  
 He talks and talks and talks and talks  
 And talks and talks and talks and talks  
 And talks and talks and talks and talks.

Good Lord, from evils fierce and dire  
 Save us each day; from fear and woe,  
 From wreck and flood, from storm and fire,  
 From sudden death, from secret foe.  
 From blighting rain and burning drouth,  
 And from the man who plays his mouth.

Examining boards are here to stay, and they will go on in the even tenure of their way despite the savage attack of a handful of malcontents. I have yet to know of a board which has not been willing and glad to meet educational authorities in a spirit of conciliation in an endeavor to harmonize honest differences of opinion. It is not true that a feeling of enmity exists between the various boards and colleges.

**College  
Faculties.**

For many years it has been considered the rankest sort of heresy to criticize, inferentially or otherwise, any of the peculiar actions of the college men on faculties. They have abrogated to themselves the right to say and do things which would not be tolerated without protest by any other profession. With an assumption which is truly beautiful they wave us aside, and say "we are the elect, and our acts must not be questioned." Time and again have members of faculties and colleges been charged and convicted, by their own association, of violations of their rules, but it is a notorious fact that, barring an exception or two, of a trivial nature, no penalty has been imposed. It is an undeniable fact that, with perhaps a single exception, the schools have been obliged, by force of public sentiment, to advance their students. It has never been willingly done. The profession at large, and examiners in particular, are frequently accused of commercialism, but that charge is too frivolous to answer when we observe the satisfied manner of college men when classes are full and no more is expended in playing a full house than a bob-tail flush. It would be a sad time, indeed, if all college men were of the same mind as some of these self-appointed oracles. Happily a large majority of members of teaching faculties are unselfish and willing to concede that the profession at large has some rights which must and shall be respected.

There is a motive in evidence which should not be lost sight of, and a note of warning at this time will not be out of place. The attack on examining boards is made for the purpose of discrediting dental laws in general, and in the endeavor to nullify and repeal what has been striven for during many years, but that effort will not be successful. It is idle to hold examiners entirely responsible for the illegal practitioners, and to say that it is their duty to see that every man practicing without a license be incarcerated. The theory of the function of examining boards is to examine not to prosecute, or meddle with other matters, yet we are held responsible, because we are in existence, for everything which cannot conveniently be placed upon other shoulders. It is a matter of record that the only successful prosecuting has been done by members of the boards, and for our comfort and peace of mind we would be glad to be relieved of this burdensome task.

The greatest menace to dentistry today comes from medical men connected with dental departments who are there from purely revenue motives, and from another class who are not actively engaged in dental practice, who are in colleges simply as a means of gaining a livelihood. It is these two classes that object most strenuously to examining boards.

Eliminate them and you will find very little opposition to competent and well-regulated boards. There is no business or profession which has not troubles of its own quite as formidable as those which confront us. We should be large enough and broad-minded enough to lay aside petty matters and labor together for the advancement of the whole profession. Dentistry is passing through the most critical period of its history, and it behooves us to deal intelligently and wisely with the various questions that come to us for solution. Colleges, examining boards, students, graduates and practitioners have rights which must be respected, and if a spirit of conciliation and fair-mindedness prevails, all our vexatious problems can be adjusted in a reasonably satisfactory manner and without loss of honor to any one.

The editorial in the December number of the *Cosmos* answers in far more able manner than I could hope to do many arguments advanced for the abolition of State Boards, and, coming as it does from an up-to-date dean, who can see over the rim of a cart wheel, it should receive most respectful attention. The good old-fashioned horse sense pervading every line of it should serve as an eye-opener to some who are asleep.

New York, New Jersey and Pennsylvania being closely allied, geographically and in nearly every other way, should be of one mind in all matters connected with our profession. As sister States we should endeavor to live in harmony and work together for the advancement of our calling, for by unity and uprightness of purpose we can demonstrate to the world that we are not actuated by mercenary motives, and seek only to bind ourselves together to be the better enabled to accomplish the greatest good for the greatest number.

And now, dear playmates, let me in conclusion thank you for the many evidences of sympathy and co-operation with me in days gone by, and to express my profound appreciation of the honors you have assisted in conferring upon me. I have no pleasanter recollection than the good will which has been so often manifested towards me by the Jersey society and the good fellowship of which I have so often partaken. In the words of Ella Wheeler Wilcox:

"If I by the Throne should behold you,  
Smiling up with those eyes loved so well,  
Close, close in my arms I would fold you,  
And drop with you down to sweet hell!"

**The President.** Gentlemen, it is quite unnecessary for me to introduce to you the next speaker, and we will now listen to Dr. W. W. Walker, of New York, who will read a little poem.

Dr. Walker responded to the toast

### **Babes in the Wood.**

I assure you that it is the greatest pleasure in the world to be your guest. If there is any dental organization I love to visit, it is this—one of the most active and prosperous societies that I know of—and I hope the custom of having these annual dinners and social gatherings will last always, and that nothing will ever occur to mar the spirit of conviviality, of brotherly love and friendship that exists in this society. The secret of this society's success lies in the fact that the president and every member of the society, and all the members of the different committees, work in harmony and unison for one grand purpose—the elevation of their chosen profession, and the welfare of the society of which they are members.

It is a fortunate thing that in New Jersey most every society is prosperous. All great institutions that are founded here become prosperous—even the churches are prosperous! Last summer in the little town of Eatontown Junction the old Methodist dominie in announcing the annual strawberry festival said: "I expect every one of you to take part in this entertainment, and I especially expect the ladies to help me. All ladies who give berries will have them in the Sunday school at seven o'clock Thursday night, and all the ladies that give milk will be there at half-past seven. (Laughter.) So you see that even in the churches here they help each other along.

I see by the list of toasts that Dr. Duffield is to respond to Infant Industries, and that reminds me that there is a very beautiful society connected with the churches in New Jersey, called the Little Mothers. The only qualification you need to become a member is a ten-dollar bill, and on payment of that you are let into all the secrets. The old dominie got up one evening to announce the meetings of the week, and he said he was very glad to inform the members of the congregation that the society of "The Little Mothers" that was started so recently had grown and become very prosperous, and, said he, "All the young ladies of my congregation who would like to become 'Little Mothers' will meet me in the rectory any night at eight o'clock." (Boisterous laughter.)

The pictures which you see upon the menu, with one exception, are all friends of ours, that exception is the girl, and I'll tell you about that,

although I may divulge one of Meeker's secrets. All those of you who were in Paris last summer will remember that the place in which the scientific section of the Congress was held was away off by the *Place Voltaire*, near the *Rue de la Serpente*, and was dubbed by the members for short as No. 8 Snake street. It was a long way off, but when you got there it was a very nice meeting place, and there were a great many young lady clerks there, and among others were two who could speak a very little English. Holbrook happened to be with Meeker this day, but Holbrook had his babe with him. (Laughter.) Meeker didn't. (Renewed laughter.) Meeker was meandering along the *Place Voltaire* when one of the girls who worked for Dr. Goding recognized him, being an old Paris girl, and she greeted him and said in broken English, "You don't want to go into that place; that is a kind of a bad shop, and you will be hurt there," and Meeker said: "Will you be kind enough to take me to No. 8 Snake street?" Well, to make a long story short, they became very great friends. She used to take him out in the woods very often (laughter), and she gave Meeker her picture, and he thanked her very kindly for it, and he said to me: "Walker, don't give it away, but I am going to ring that in on the boys at our annual dinner," so here it is.

When I received the letter from Dr. Meeker asking me to respond to a toast at this dinner, I told him that I should be very happy to respond to a toast, or do anything I could for my fellow members in the State of New Jersey, and Meeker wrote back and said: "Don't be serious; don't write a long speech," and I said I would try and not be serious, and that reminded me of a little incident which occurred last summer in London. I was standing in Piccadilly talking to Dr. Henry Williamson, one of the professors of a medical college there, when a little girl passed us, who was in quite an interesting condition, and he said: "Look there; some young man around here has been poking fun at that girl, and she has taken it seriously." (Laughter.) I will try and not take this toast too seriously, but it is rather difficult for me to connect Babes in the Wood with dentistry in any way, shape or manner. It reminds me a good deal of a little sketch presented by Weber & Fields, when Weber says to Fields: "You don't want to mind dot fellow, he is only von of dem has-been-its," and Fields says: "I would rather have been von of dem has-been-its than a never-vas-it." (Laughter.)

To compare the Babes in the Wood with dentistry I can only say that we can go back into the profession in this connection to 1772, or thereabouts, when John Greenwood was practicing dentistry in the city of New York on Beekman street, and one Cardett.

**Practitioners of  
Early Days.**

After him was a man named Baker, whose home was in Boston, and who was one of the most skilled dentists in the world at that time, and traveled around from city to city, teaching all who were willing to pay him, what he knew of the profession up to that time. Then there was another man whom I never knew was a dentist until I looked this matter up, and that was Paul Revere. He was originally a silversmith in Boston, but practiced dentistry from 1773 to 1775 or '76. After the battle of Bunker Hill the remains of General Warren were sought for in order that they might be reinterred and a monument erected over them, and Paul Revere identified those remains by a piece of work which he had wired into the mouth of General Warren.

And so we go on in the history of our profession, and in this part of the country we find the Parmleys. If you have ever read the story of the "Babes in the Wood," you will remember they got lost, and a great big policeman found them. Now, how are we to get a policeman to find these people in dentistry? There is no better man to take the part of that policeman than Chapin Harris, who, in 1840, in Baltimore, founded the first dental college, and the first dental society, and the first dental journal was founded about that time in about the same place. After Chapin Harris it is easy sailing. Then we find our dear brother, W. W. H. Saxton, and one or two others from the Southern States, and we come along to this part of the country, where we meet dear old Dwinelle, dear old Papa Atkinson, and many others prominent in dentistry who have helped to build up our honored profession.

And then last, but by no means least, we come right to this old society of the State of New Jersey. Of those who have passed and gone we might mention the name of Brown (applause), and our dear old friend Levy (applause), and others whose names just at this moment have slipped my memory, and who have been admitted into the unseen temple and gone before.

**Men of  
Today.**

Then we come right down to the present day, although it is early in the century, and we can mention the dean of our societies here, our friend, Dr. Stockton. (Loud applause.) No man has done more in this State for the uplifting and building up of dentistry than he. (Applause.) Then we can mention a younger man, but one who has done no less work, and that is Charlie Meeker. (Loud applause.) The name of Meeker is printed indelibly in the mind of every dentist in the United States who attends dental meetings, for Dr. Meeker is the epitome of everything that is progressive and efficient in the way of arranging dental societies and meetings. We have a specimen of it here tonight, in this out-of-the-way place—Newark. I say "out of the way"



because people come from everywhere to attend meetings that Charlie Meeker arranges. I claim that Meeker carries the palm for that sort of thing, not only in this country, but in every other country. (Loud applause.) Then we have his associates, Barlow, Addelberg, Brown, Luckey and all the boys in this society, who have done noble work in building it up, and I hope, Mr. President, that this high and elevated position that you have held for so many years will continue as the years roll on, and when, in the years to come, the present members of this society have passed away, that those who are now the younger men will meet around these tables and continue the happy occasions, and when they speak of you in future days, they can well say "They did their work nobly and well." (Loud applause.)

And now, Mr. President, just one more word. This is the twenty-first anniversary of this society; you have passed the twenty-first milestone, and I want to ask the privilege of presenting to you, to be pasted in your book of records, a picture of John Greenwood, the person who attended to the teeth of George Washington, and under it his autograph. (Loud applause.)

(Dr. Walker then presented the picture referred to to the President, who received the same on behalf of the society.)

Our next speaker needs no introduction from me. He is one of our loyal members, who is always ready to sacrifice himself on the altar of his country, and to do all that he can for us, and I have the pleasure of presenting to you Dr. Luckey, of Paterson, who kindly responded to the toast

### **The Loyalty of Members to the State Society.**

To say that I am surprised at being called upon would hardly be to speak the truth. On such occasions as this we are supposed to render impromptu speeches, and so that I might be able to stick closely to my text, I have taken occasion to write down the few remarks that I shall make. After formulating my introduction, I was struggling hard to find a story or something of that sort that would point toward the culmination of my text, something to fasten in the beginning in the minds of my hearers the point that I wish to convey, and at that moment I received through the mail a little paper from a country town, with a poem in it, which seemed to me the most appropriate and subtle thing that came within the range of my knowledge to attain my object, and, before going on with the body of my remarks, I will ask your indulgence while I read a short poem. It is entitled "At the Gate." To it is attached the name of no author, nor is credit given to any publica-

tion for its origin, so where it came from or who is responsible for it, I do not know.

Dr. Luckey then read the following poem:

#### AT THE GATE.

St. Peter stood guard at the golden gate  
With a solemn mien and an air sedate,  
When up to the top of the golden stair  
A man and a woman, ascending there,  
Applied for admission. They came and stood  
Before St. Peter, so great and good,  
In hope the City of Peace to win—  
And asked St. Peter to let them in.

The woman was tall, and lank, and thin,  
With a scraggy beardlet on her chin;  
The man was short, and thick, and stout,  
His stomach was built so it rounded out,  
His face was pleasant, and all the while  
He wore a kindly and genial smile.  
The choirs in the distance the echoes woke,  
And the man kept still, while the woman spoke.

"O, thou who guardest the gate," said she,  
"We two come hither, beseeching thee  
To let us enter the heavenly land  
And play our harps with angel band.  
Of me, St. Peter, there is no doubt,  
There's nothing from heaven to bar me out.  
I've been to meeting three times a week,  
And almost always I'd rise and speak.

"I've told the sinners about the day  
When they'd repent of their evil way,  
I've told my neighbors—I've told 'em all  
'Bout Adam and Eve and the Primal Fall,  
I've shown them what they'd have to do  
If they'd pass in with the chosen few,  
I've marked their path of duty clear,  
Laid out the plan for their whole career.

"I've talked and talked to 'm loud and long,  
For my lungs are good and my voice is strong;

## ITEMS OF INTEREST

So, good St. Peter, you'll clearly see  
 The gate of heaven is open for me;  
 But my old man, I regret to say,  
 Hasn't walked in exactly the narrow way.  
 He smokes and he swears, and grave faults he's got,  
 And I don't know whether he'll pass or not.

"He never would pray with an earnest vim,  
 Or go to revival or join in a hymn,  
 So I had to leave him in sorrow there  
 While I, with the chosen, united in prayer.  
 He ate what the pantry chanced to afford,  
 While I, in my purity, sang to the Lord,  
 And if cucumbers were all he got,  
 It's a chance if he merited them or not.

"But oh, St. Peter, I love him so!  
 To the pleasures of heaven please let him go!  
 I've done enough—a saint I've been.  
 Won't that atone? Can't you let him in?  
 By my grim gospel I know 'tis so  
 That the unrepentant must fry below;  
 But isn't there some way you can see  
 That he may enter who's dear to me?

"It's a narrow gospel by which I pray,  
 But the chosen expect to find a way  
 Of coaxing, or fooling, or bribing you  
 So that their relations can amble through.  
 And, say, St. Peter, it seems to me  
 This gate isn't kept as it ought to be,  
 You ought to stand right by the opening there,  
 And never sit down in that easy chair.

"And say, St. Peter, my sight is dimmed,  
 But I don't like the way your whiskers are trimmed,  
 They're cut too wide and outward toss,  
 They'd look better narrow, cut straight across.  
 Well, we must be going, our crowns to win,  
 So, open, St. Peter, and we'll pass in."

\* \* \* \* \*

St. Peter sat quiet, stroked his staff,  
 But spite of his office he had to laugh;  
 Then he said, with a fiery gleam in his eye,  
 "Who's tending this gateway, you or I?"  
 And then he rose, in his stature tall,  
 And pressed a button upon the wall,  
 And said to the imp who answered the bell,  
 "Escort this lady around to—hades!"

\* \* \* \* \*

The man stood still as a piece of stone—  
 Stood sadly, gloomily, there alone.  
 A life-long, settled idea he had,  
 That his wife was good and he was bad.  
 He thought if the woman went down below  
 That he would certainly have to go;  
 That if she went to the regions dim  
 There wasn't the ghost of a show for him.

Slowly he turned, by habit bent,  
 To follow wherever the woman went.  
 St. Peter, standing on duty there,  
 Observed that the top of his head was bare.  
 He called the gentleman back and said,  
 "Friend, how long have you been wed?"  
 "Thirty years" (with a weary sigh),  
 And then he thoughtfully added, "Why?"

St. Peter was silent. With head bent down  
 He raised his hand and scratched his crown,  
 Then seeming a different thought to take,  
 Slowly, half to himself, he spake:  
 "Thirty years with that woman there?  
 No wonder the man hasn't any hair!  
 Swearing is wicked. Smoke's not good.  
 He smoked and swore—I should think he would!

"Thirty years with that tongue so sharp?  
 Ho! Angel Gabriel! Give him a harp!  
 A jeweled harp with a golden string!  
 Good sir, pass in where the angels sing!  
 Gabriel, give him a seat alone—  
 One with a cushion—up near the throne!  
 Call up some angels to play their best,  
 Let him enjoy the music and rest!

## ITEMS OF INTEREST

"See that on finest Ambrosia he feeds,  
 He's had about all the hades he needs;  
 It isn't just hardly the thing to do  
 To roast him on earth and the future too."

\* \* \* \* \*

They gave him a harp with golden strings,  
 A glittering robe and a pair of wings,  
 And he said, as he enter'd the Realm of Day,  
 "Well, this beats cucumbers, anyway!"  
 And so the Scripture had come to pass  
 That "The last shall be first and the first shall be last."

Mr. President, the application of this poem may not seem very clear to some of you here tonight, but there are possibly a few who can see that application; if they do not now, perhaps they will before we get through.

It is with a feeling of trepidation that I rise to speak to you tonight after all these brilliant stars in the field of oratory have blazed and scintillated and flashed forth their glory upon the world of suffering devotees of dentistry and their friends. I feel that the only thing that will save you is the quality of mercy. I feel that you are worthy of a better fate than being talked to death. You have worked long and arduously to earn and save the money to come to this dinner. You have had a good dinner and are now enjoying the pleasure, I hope, of perfect digestion and complete satisfaction with the world and all who inhabit it. So I will treat you tenderly and briefly, hoping to leave you when I finish in the same condition of sobriety and happiness that I now find you in.

This society is a great and successful one, due no doubt to the fact that no man is elected to office unless he is handsome. Good looks is one of the greatest factors in success in these early days of the twentieth century. If you doubt me look for a moment at the handsome features of the officers of this society as portrayed on the pages of our menu. Every one a portraiture of beauty, dignity, professional success and financial independence. There is a gallery of portraits calculated to stimulate every one who looks upon it. Think for a moment of the feelings and the ambitions that will be aroused in the breasts of the young men just entering our profession when they look upon those faces. Of course, they can never hope to rise to such heights of professional importance, but they will pray that they may some time be allowed to just touch the hem of their garments, and they will be supreme-

ly happy. Now, gentlemen, I am not entirely frivolous in what I have said; it is really largely true that these men who are the public representatives of our society are the direct means of stimulating the young men who are entering our field to exercise the talents that they possess that they may some day become a blessing to humanity and an honor to the profession they have adopted. And how did these men become prominent? Only by loyalty to their societies. All professional advancement is due to organization; individual ability or ambition amount to nothing. The proud position of dentistry today, ay, and of all other professions, is due to the unselfish work of the men who have given up time and money to organize and conduct the affairs of the different societies. It is not every man who is willing to give up his time and his money to advance society interests, and to such as do great honor is to be accorded. They sacrifice home comforts, pecuniary gains and bodily health sometimes to boom along the work. And the whole profession benefits alike, members and non-members. It is a crying shame that so few are compelled to do the work and bear the expenses while so many enjoy all the benefits. Every practitioner should be a member at least of his State society, so that he might help to bear both the expense and work connected with its conduct, for he shares with every other practitioner of his State in the benefits of such organized work. A man once imbued with the desire to participate in and help along society work is apt to continue his interest to the end, he will be as anxious to retain his place among his associates as an old Irishman of whom I once heard.

An old Irishman lay upon his dying bed. His friend Mike called to comfort him. Pat requested Mike to take the money that was under his pillow and pay a number of debts that he owed to different people, mentioning the people and the amounts due to each. Mike took the money and went out and did as requested. On his return he told Pat that he had paid every bill, and handed him the receipt for them. "But," he said, "I have five dollars left over. What do you want me to do with that?" Pat thought a minute and then said: "I wish you would treat the 'boys' on the day of the funeral." "Shall I treat them going or coming back?" asked Mike. "Why, man, treat them going," said Pat, "I'll not be with you coming back."

You see he liked the company and wanted to be "in it" to the end.

The incentives to join in associated effort are many. Men join for various reasons, to please a friend or to spite an enemy, to advance their professional or financial interests, to be in touch with the latest and most advanced thought, and men who make study and effort the watchword of their lives, to be associated with men of noble ambitions.

Some of these reasons are worthy and commendable, and when a man is once a member of a professional body he owes it to himself and his profession to be honest in his attitude toward all matters touching both his society and his profession. I believe that when a member participates in the business or discussions of his society he should divest himself of all personal leanings; that he should treat all subjects under discussion honestly, forgetting entirely either friend or foe, bringing only his own intelligence and judgment to bear upon the subject, to the end that truth and general welfare shall be subserved rather than the gratification of his own personal ends.

I have known, and so have you, men who, because they were opposed, or not advanced along the line of official promotion, as they believed they were entitled to be, either created dissension or resigned in anger from their societies. They felt that they were not appreciated, or that some influence was unjustly exercised to prevent their advancement or the acceptance of their views. So out they went, with feelings of enmity and crushed ambition rankling in their bosoms, but the only party in such a transaction who is ever hurt, is the one who resigns. He it is who suffers the penalty of being forgotten, practically of professional oblivion. And oh! how short a time it requires to bring about such oblivion. It almost makes one shudder to think how soon all the efforts and energy of even the most prominent, and even their personality is forgotten. It would be cruel to go into details and mention the names of the worthy men of note, of even national and international reputations, who have dropped out of society affiliations who are today practically forgotten. So far as their influence upon the lives and work of the dentists of today are concerned they might just as well be dead. And what of the societies? They are going on with their work just the same, the little ripple caused by the resignation of the indignant member has spent its force, and the surface is as calm and smooth as ever. The toast uses the word loyalty, and it fits the case exactly. What every society needs for its success and usefulness is the loyalty of its members, constant and sincere and all the time; even such sincerity as was manifested by an old darky would not be amiss.

It seems this old darky was arrested for stealing chickens, and, to help him out of his scrape, hired a lawyer to defend him. When the case was called the darky was put upon the stand and closely questioned, but seemed to be entirely ignorant of anything concerning the case, and finally the Prosecutor angrily said: "See here, Sam, you are the defendant in this case, are you not?" The darky looked at his questioner a moment and then said: "No, sah; no, sah; I'm not the 'fendant

in this case. I hired that lawyer over there to do the 'fendin'. I'm only the man that stole the chickens."

Possibly the old darcy was just a little bit too sincere, but he was both ignorant and dishonest, charges which cannot be brought against the men I am talking about. They owe it to themselves, they owe it to their reputations, they owe it to their profession, they owe it to their society to stand by their posts. No matter how dark and lowery the weather, no matter how threatening the skies, no matter if the sun is obscured and all the future looks hopeless, they have no right to be cowards, they have a duty to perform, and the world and society expects them to perform it. "The good that men do lives after them," and if they will only do what God has given them the power to do their lives will not have been spent in vain, but the echoes of their good deeds will go rolling and bounding down the corridors of time doing good to and benefiting all future generations.

Gentlemen, we are very fortunate in having  
**The President.** with us tonight another of our friends from New  
 York, and one who not often honors us with his  
 presence.

We are now to have the pleasure of hearing from Dr. Freeman, of New York. (Applause.)

Sol Freeman, D.D.S., of New York city, then spoke as follows on the subject of

### Gas.

Upon exploiting any new scheme, I think it advisable to give a clinical demonstration and a theoretical explanation, permitting you to make your own deductions. Knowing that you are desirous of my future welfare you will appreciate the honor I confer upon you by opening my valves this evening and letting you in on the ground floor.

It is a well-known fact that we great spell-binders may, through the narcotic and noxious effect of their natural gas, become distinguished gentleman, occupying a seat in the "United States Senate," as my friend Chauncey, or may be called upon to hob nob with the royalty as Minister to England, as my comrade Choate. At any rate, I have notified President McKinley that there are a few of us left, and that he should kindly inform his Cabinet that I am prepared to occupy any position in which I can make my Mark—consent, or if this glory is not gained in this life, my name my occupy some large tablet in "The Temple of Fame," but sometimes things work by contraries, and before I am finished it will not surprise me to see you appoint a commission



to inquire if it is not advisable to have me fill a minor position as an inmate of some state institution.

As you have taken the initiative of introducing me as an after-dinner speaker, and Charlie informed me that everything goes, I ask you boys to let go of everything until I resume my seat; as you brought upon yourselves this infliction so must you abide by the consequences.

You boys of New Jersey well deserve the name "Hornets," for you begin by a slight buzzing to set the wheels a-going, which develop those new ideals which your sister societies recognize as the proper course to follow, and whenever you place before the profession a new scheme, you have the nerve to push it, and there is not a man who dares devitalize or mummify it, or if he thinks he has done so, he will find that the gas is left, and he can quickly give his prognosis.

It has often been asked why do the Jersey boys stand head and shoulders above the other dentists in the country as to their ability, their theoretical and practical knowledge. Not wishing to be egotistical, as I am one of you, having been born in this foreign land—New Jersey—I will give the secret to our brethren. It is our interchanging ideas and giving close attention to all that is going on in the dental world.

Now, gentlemen—beg your pardon, boys, for being so formal—as this is the first annual meeting in the twentieth century, permit me to propose a motto that you may well adopt. It is similar to the epitaph so befittingly applied to our glorious Washington.

For are you not the first to demand your rights, and fight for them, and when peace is sought are you not the first to extend your hand to your fellow men, whilst none can deny that you have introduced many of the good laws and practices which are followed by our brethren?

So I ask you tonight to rise and pledge yourselves to the motto that you so well deserve:

First in the fight for right; first in peace, and first in the hearts of his fellow practitioner.

Of all the words in our language which appeal  
**The President.** most deeply to us, perhaps there is no word which  
has such a fulness of meaning as the word "Friend-  
ship."

Our worthy friend, known throughout the world wherever dentistry is known, the Dean of the New Jersey Society and of the profession of dentistry in New Jersey, Dr. Charles S. Stockton, will now speak to us on that subject.

Dr. Stockton responded to the toast

### Friendship.

As I look down these long aisles and see every seat filled I cannot but say in the language of a distinguished orator "Great is the Central Dental Association, and Meeker is its prophet." (Applause.)

I had hoped that when the "gas" exploded there would be no occasion for any other pyrotechnics, but you have very kindly insisted

upon my speaking. When this menu came into my hands, and I looked very carefully over it, I saw it was a very beautiful work of art. A gentleman who knows what he is talking about has said to me that this is one of the finest of the kind he ever saw. As I looked over the list I saw that my friend Dr. Luckey was to precede me, so I immediately wrote to him and said: "My Dear Friend: Kindly make the poorest speech you ever made so that I can beat it, or the best one you ever made that it may be an inspiration."



You know what a magnificent speech he has made tonight, and I must try to follow it. The speeches made by my friends, Dr. Walker and Dr. Luckey, remind me of a story.

Senator Waterson, who is a very remarkable man, was sitting in the café at Chamberlain's, in Washington, and Senator Thurston came in and saw him sitting there, very glum, in the corner, and said to him: "What makes you look so glum tonight?" "Well," he said, "I was just thinking it is no pleasure to be in the Senate of the United States any more. Clay, Calhoun, Webster, Sumner, Benton and all those great men have passed away, and there are no more orators any more in the Senate. There are only three orators in the country." Thurston said: "Who are they?" And Mr. Waterson replied: "Myself, yourself and A. J. Clark." "What in thunder do you bring Clark into this for?" said Thurston. That is the way I feel in regard to myself. Luckey and Walker! There is no need, when you have these two men, to bring in anybody else.

I will go back just one more step in this programme, and that will bring me to my subject. You all know Dr. Walker. You have seen the sunny side of him, and you know him, perhaps, as well as I do; or you think you do; but you don't. You don't know that man; he has two sides to him. He was one of a committee of fifteen to project and carry out the great World's Columbia Dental Congress. He was the chairman of that committee. We met at Lookout Mountain. There, unfortunately, I was taken very ill with ptomaine poisoning. I thought that I would die before the morning came. I managed to get down next morning, and announced to Dr. Walker my intention of going home at once, telling him that I was too ill to stay, and he replied: "Well, old boy, I think it is the best thing for you to do, and I am going with you." And he did. He came home with me, and took as tender care of me as a mother could of a child or a brother of a brother. But that is not all. When trouble came, when disaster overtook me, he sent to me a certified check for one thousand dollars, and said: "If that is not enough, my boy, draw on me at sight for all you want." That is friendship. (Loud applause.)

That brings me to the subject that I am to speak about—"Friendship." Have any of you ever seen a rose bush? It is not a particularly beautiful thing to look at. Its roots are ugly, but it sends out these roots and gets from the soil that which it wants, and sends it up through the stem and out among the branches, and the sunshine brings out the sweetest and most beautiful thing that God has ever made—a rose. So it is with friendship. It is a plant of slow growth; it has to be planted in the soil of confidence; it must be watered by truth and fidelity; the sunshine of sacrifice must beam upon it, and then grows out that lovely rose—friendship, which defies alike the blistering suns of summer and the wintry blasts. Real friendship lifts a man up and makes him better, and it is one of those things where familiarity does not breed contempt. Somebody has said that friendship is like a log of drift wood tossed on the billowy main; drifting on, it touches other logs; they touch and part again, and drift eternally; but that, you know, is not friendship. When once we touch heart to heart in true friendship the golden chains are riveted tighter and made stronger.

Friendship is the noblest of the virtues, and ingratitude and treachery are the foulest of the vices. How it has stung you, perhaps, sometimes when you have had a friend in whom you confided, in whom you have believed, and who has proved false to you. King Lear, I think it was, who gave all his vast fortune to his daughters, and they turned him out of doors on a night of which some one said: "If my enemy's dog had bitten me I would have stood him against my fire

on such a night as that." So it oftentimes is that the sting comes from those from whom we expected better things. When adversity and trouble come, how few are there who come to you and tell you how they sympathize with you, and how their heart goes out to you in your troubles. I have been through experiences, my friends, and have enjoyed the friendship of many. One or two things I might tell you to show that friendship still exists in the world.

There was a gentleman who loaned me twenty-five hundred dollars to go into the factory that pulled me down. Afterwards I sent for him, and told him of my troubles, and I said: "My dear sir, I cannot pay you now, but I will. I can do as good dentistry as I ever did," and I fixed up his teeth. Afterwards he came to see me just before crossing the ocean. He took my hand in both of his and said: "Now, Stockton, I want you to stop worrying about that twenty-five hundred dollars. It is not a snap of my fingers to me, and if you had it to give me I would not take it; you have done the best you could; I have invested money time and again and lost it; you have lost that money and I don't want it, and if you don't send me a bill for the work you have done for me, I won't like it." There was an act of friendship that sent the blood coursing through my veins to the very ends of my fingers and toes, and put new life into a spirit that was almost broken; that was the man who passed by on my side, poured oil into the wounds and made the world again seem bright and happy. There are such friends. As I look down the aisles of these tables tonight, one of the greatest pleasures I have in the misfortunes that have overtaken me is that I can stand here tonight with uplifted face and bright eye looking into your eyes and bright faces, and say to you, and have it come back to my heart with a warm throb, that every man in dentistry and every man around these tables, thank God, is my friend tonight. (Loud applause.) It has been the one thing that has kept me up and made me feel that there was something yet in life worth living for. If a man has been successful in finding one unalterable friend, who is a true friend, he has tasted something of the joy that comes down from the other world.

It is getting late, but I want to relate just one more instance of friendship. A gentleman happened to be in the office of the Assistant Secretary of War at Washington, and the Secretary said to him, placing some letters in a pigeon hole: "These pigeon holes are handy things; they are made on purpose for putting just such letters in. Here is a communication from a man in the army who desires to be transferred from the West to the East, but he has no influence, no Representative and no Senator." "These are just the kind of cases I would

like to help," said the gentleman; but in the pressure of many other matters this was forgotten. About a week later a lady came to see him in his office in New York, and requested him to use his influence to have her husband, who was an officer in the army, transferred from the West to the East, as the climate where he was stationed was slowly killing his wife and children. All the time she was talking to him he was trying to fasten a memory in his mind which her voice aroused, and presently he did it. When she finished her story he promised to do what he could for her. She had no sooner left the office than he went out and got letters from the president of the Pennsylvania Railroad Company, from the president of the New York Central Railroad Company and from Pierpont Morgan. He proceeded at once to Washington and, by use of this influence, secured the transfer. She came back and told the anxious wife of his success. She was overjoyed, and she said: "May I ask why you have taken such an interest in our case?" He said: "Yes, that is a very proper question. It is because the boy's memory is better than the girl's. Don't you remember that twenty-nine years ago, when we graduated, I walked home with you after the commencement, and we then and there promised to each other that we would ever afterwards be friends? I have merely followed my part and been a friend to you. That is all. I promised you friendship, and have given it. That is friendship. It has stood for twenty-five years, and it will stand for twenty-five years more." (Applause.)

That is what friendship is. It is made of sacrifice; it is made of kind feelings; it is made of confidence and truth. Friendship is the most beautiful thing that God has ever made or put into the heart of man, save only the love of a good woman. (Loud applause.)

Our worthy dean has touched a very tender chord in our hearts, and I now propose a standing toast to him.

(The members rose and drank Dr. Stockton's health, afterwards joining in singing "For He's a Jolly Good Fellow.")

We will now listen to a few words from the honored president of our State society, Dr. F. Edsall Riley. (Applause.)

Dr. F. Edsall Riley responded to the toast

### **Our Mother Society.**

As president of the New Jersey State Dental Society I thank you for the compliment you pay us tonight in calling us the Mother Society. You literally accuse us of being in advance of our surroundings. Your age is twenty-one, your mother is only thirty-one, and yet the un-

usual record made by this mother of yours at ten, unusual in this climate, is the record she has been making each year since her birth, but in another direction, that of advancing along the lines of her calling in the profession, always far ahead of her surroundings.

Last year at Asbury Park we had the greatest dental meeting of the old century, greatest in its essays, its clinics, its exhibits, in fact far in advance of its colleagues in all departments.

But, gentlemen, this is the beginning of a new century, and the N. J. S. D. S. intends to hold fast to its past record. Our essay committee decided to have fewer essays, and, if possible, a still higher grade than ever before. The programme is about complete, and all I need say for it is that Dr. Hindle is the chairman.

The dental convention of the twentieth century must be a convention of clinics; members of our profession are demanding a demonstration of the ideas advanced by our progressive men, and they appreciate this and are more ready to clinic today than they are to write an essay. Dr. Sutphen, the chairman, already has thirty clinics, and the best part of the year is before him. He has been authorized by the Society to have constructed platforms or stands that will enable the visitors and members to get a better view of the operators as well as to assure the operator more room and better facilities.

Last year there were forty-four exhibitors of the wares of manufacturers pertaining to dentistry. This year Dr. Fish is keeping his typewriter warm writing to applicants for space. Last year it was a bazaar, this year it will be a Pan-American Exposition, and with the prospects of the clinics and exhibits Dr. Meeker, the committee on accommodation, is considering making a special trip to Asbury Park to request Mr. Bradley to have the great Auditorium enlarged to accommodate the convention of the N. J. S. D. S. of 1901. Already we have decided we must use the ground floor for clinical conference and art and invention, which latter committee, by the way, is a new one, and will, I am sure, surprise you with the result of its work under the leadership of Dr. Iredell.

Another new committee is the committee on registration. At the entrance to the convention hall you will be requested to register your name and address and be presented with a button—that long-lost button. This button will admit you and your friends to all the sessions. This registration, we hope, will give us some control of the public, and we shall have better order than ever before; and then think of the return when the exhibitor takes home with him a copy of the contents of that book! All samples during the twentieth century will be “express paid.”

Of the membership you all know that for the past three or four years our membership has been rapidly increasing, but the past is no comparison with this year; the committee has more applicants than have ever been made members in any one preceeding year, and the membership committee are only tonight getting ready for business. I could go on and tell you of the proposed plans of each and every committee on the long list, but it will take too much of your time at this late hour; suffice it to say that I have already letters from every chairman outlining the work he proposes his committee shall accomplish, and each and every one shows he has the twentieth century spirit in his work. For example, Dr. Gregory has written to every manufacturing chemist throughout the United States and Europe requesting a sample of their wares that pertains to dentistry with a synopsis of their claim for it. Just imagine for one moment, if you can, what his office will look like one month from now. But, gentlemen, when Dr. Gregory has tried them all on his patients, and makes his report to you next July, you will take home with you something that will place you several years in advance of your brother who does not attend this meeting.

Gentlemen, forget all I have said if you will, forget every one of the committees and what they propose to do, and just remember this one thing that the 1901 convention of the N. J. S. D. S. is going to be the greatest in the world up to the present day, not only in what I have mentioned, not only in the good fellowship, but the professional contact, for everybody is going to be there. Why, even Dr. Walker is coming home to Jersey, understand; not home to America, not home to New York, but home to Jersey from the other side of the water just to attend this meeting. He says he knows he will fall behind the times if he absents himself.

The arrangements are complete even to hotel accommodations, for Mr. Jones is building another annex for our special benefit, and he says with all the work we have mapped out he does not see how we are going to get through in three days, but that need make no difference, for he will take care of you free of charge if the convention continues in session longer than the scheduled time.

And now, Mr. President, there is one regret I have, that this mother of yours did not give you a sister earlier, but last year there was born in the southern section of our State another offspring. Although late in life you will find it a happy, healthy, precocious infant.

Last, but not least, we have with us tonight a gentleman who has not often honored us with his presence, and one who is doing a glorious work in

**The President.**

the southern part of the State. Indeed, we in the North must look to our laurels or we shall have to take a back seat!

Dr. Duffield, president of the Southern Dental Society of New Jersey, will now address us.

J. E. Duffield, D.D.S., of Camden, N. J., then spoke on the subject of

### **Infant Industries in Southern New Jersey.**

Judging from the toast assigned me for this evening, I am inclined to believe your secretary has been laboring under the impression the Southern Dental Society is in some unaccountable manner connected with a foundling institution; this, I assure you, is an error. However, it is a fact, we are the infant society, and although being such, still we hope in the near future to demonstrate so healthy a growth that, while not ranking in years with either the State or Central Societies, nevertheless we may equal them in vigor and enthusiasm.

Referring to the Southern Dental Society, during the fall of 1899 temporary meetings were held in the city of Camden, at which time it was decided to form a permanent society comprising the seven lower counties of the State, and an invitation was extended to all legitimate practitioners in those counties to participate in its formation. On the first Wednesday in January, 1900, a permanent organization was effected by the adoption of a constitution and by-laws and the election of officers for the ensuing year. Since then we have gone steadily forward, holding monthly meetings during ten months of the year, until now, out of an available list of some 60 practitioners, we compose a society of 26 active members, and have already awakened not only a deep fraternal feeling, but have also succeeded in making the members of our profession comprehend that as a body we are more than mere tooth carpenters; that we are dealing with vital questions, and are in the truest sense of the word benefactors of the human race.

Never in the history of our profession have men so fully realized as in the beginning of this new century the importance and dignity of the practice of dentistry. With the eminent and conscientious men composing our college faculties and our state examining boards, working in harmony for a higher professional standard, saying in their requirements to candidates, "you must be men and women especially fitted for this particular work, both morally and educationally." As societies, it behooves us to co-operate and carry forward the above exemplary precepts, and to use every effort to place our calling in the foremost ranks of the world's professions.

This, gentlemen, represents the aim and object of your "Infant industry in South Jersey."



## **Practical Progress in Dental Skiagraphy.**

By WESTON A. PRICE, D.D.S., M.E., Cleveland, O.

*Illustrated lecture before the Cleveland Dental Society with members of the Northern Ohio Dental Association as guests. April 1, 1901.*

It is very difficult to understand why the dental profession, which is usually quite progressive, has been so slow to appreciate the great practical service which the Roentgen rays can render. This is certainly due chiefly to a lack of information and doubtless in part to a lack of a spirit of research. I am fully convinced that the general practitioner in dentistry has relatively much more use for the Roentgen rays than the general practitioner in medicine. The facts are that a very large number of the latter are using them regularly, and finding their services indispensable, while probably not a dozen of the dental profession of the world are using it themselves extensively. A very few are availing themselves of their service by sending their patients to some one else to have the skiagraphing done, but I think there are not yet a dozen expert specialists in the world, and consequently but a very few dentists can send this work elsewhere. Every city or town should have one or several experts, who, by the way, must be dentists. General electricians or practitioners of medicine cannot, for example, be expected to know anything about pulp nodules or excementosis, nor would they recognize them if they were present, and from the very nature of this new means of diagnosis the skiagrapher will be largely relied upon for the interpretation.

There is abundant reason why the dentist should do this work, and there is no good reason for his not qualifying. The public have a right to demand of him that he do so, and thereby save for them probably 75 per cent. of the teeth which he now diagnoses as incurable; besides preventing many a deformity by anticipating it, and correcting it with a minimum of effort and a maximum of success. The dentist who can do this work for himself will certainly avail himself of the information it will render much more frequently than if he has to send his patients elsewhere. He will gain a fund of knowledge of pathological conditions and the relative merits of different working methods that he cannot get in any other way. I feel so strongly that the dental profession owe it to themselves and to the public to take up this work that I can scarcely

refrain from entreating every dentist I meet to do so. No dentist with a fair practice can afford not to do so, for the patients will gladly pay for the outfit for him. Two qualities in the man are prime requisites, however, viz., that he have lots of good sound judgment, and that he be not afraid of a lot of study. Others should leave this work strictly alone, for they will certainly fail, and, worse still, will bring a sad disrepute to a good cause.

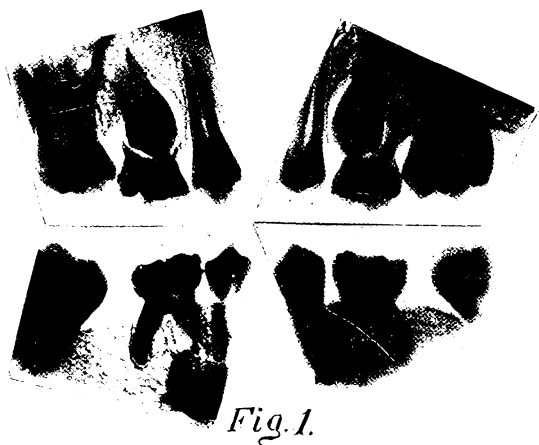
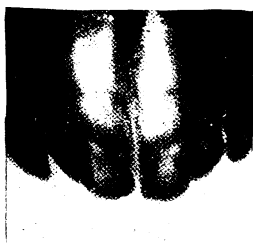
I think I am well posted as to the status of this work all over the world, for I have investigated it very thoroughly, and I find that more dentists of this city are availing themselves of the services of the Roentgen rays than in all the rest of the world together, and while I am glad to serve you, as I do so many of you, yet I urge you to put in outfits and do this work for yourselves, those of you who can, for you would use it to your great profit in very many cases where you do not now feel that you can send the patients to me for it. The range of application is nearly as wide as the variety of conditions in which we can be concerned. I shall show you only one or two practical examples of each of about a dozen branches, all from practice.

Let us first consider unerupted teeth. This  
**Unerupted** slide (Fig. 1) shows the condition of a girl at four-  
**Teeth.** teen who has retained all the second deciduous

molars. Why have the second bicuspid not erupted? And will they ever? are questions requiring to be answered, and could only be answered heretofore by a destructive operation. The skiagraphs reveal a strange condition. The second bicuspid are forming in the superior arch but not in the inferior. Of those above the roots are just beginning to form though these teeth have already caused the absorption of the roots of the deciduous molars. While in the inferior arch no bicuspid have formed, there is present on the left side the formative organ, and in position, and it may yet perform its function.

In the next slide (Fig. 2) we have studies in the early developing process of the teeth of both the deciduous and the permanent sets. Fig. 2 a, shows the condition of the superior arch of a baby boy at fourteen months of age, when none of the deciduous teeth have yet erupted. They are seen in the process of development, and just inside them you see the formed incisive edges of the permanent centrals. In Fig. 2 b, you see the same case at twenty-eight months of age. The deciduous incisors have erupted in the meantime and now their roots are formed. You also see clearly the extent of the progress of the development of the permanent centrals in fourteen months.

In Fig. 3 you see the location of a missing bicuspid. Remember the soft tissues are not shown in the picture, but only the teeth and

*Fig. 1.**Fig. 3.**2.a.**2.b.**Fig. 2.**Fig. 4.**5.a**5.b.**Fig. 5.**Fig. 6.*

bone. Clinically the condition suggested that the missing bicuspid had not formed. You see it clearly inlocked between the first molar and the first bicuspid. You see also the developed crown of the second molar still without roots, and the developing crown of the third molar.

Sometimes teeth wander far out of their proper position. Fig. 4 shows a permanent cuspid in the floor of the nares and in the posterior part of the hard palate, with its cusp just in the median line. The patient is about twenty years of age. It also shows a small supernumerary just inside and between the central incisors.

Fig. 5 is even more remarkable, for it shows a fully developed permanent lateral root on which no crown has formed (a) and a fully developed central crown on which no root has developed (b). In this case the right permanent central and the left cuspid are nearly touching. The patient is a girl of fourteen years. The left central and lateral are missing, and there is to be seen between the right central and left cuspid what the mother remembers to be a temporary tooth. The skiagraph shows this supposed temporary tooth to be a crownless lateral with root perfectly formed, and also shows the rootless crown of the missing central with its incisive edge engaged against the root of the right central. This patient is of necessity quite disfigured, but the information suggests the proper course for the best correction of the error. This condition is the result of a bad fall when a baby.

Fig. 6 shows a second bicuspid erupting toward the hard palate.

Fig. 7 shows an impacted third molar. It is almost entirely covered with bone.

Fig. 8 shows a remarkable condition. The patient had suffered from a dead pulp in the left central presumably caused by percussion in an argument about a year previous. After treatment the canal could not be closed without extreme discomfort and the tissue at the apex of the root seemed to be abnormally sensitive. The dentist in charge brought the patient for a skiagraph, which shows a fully developed cuspid tooth lying against the root of the central. It has caused a complete absorption of the upper third of the root of the lateral. The patient had a gold crown on the left cuspid, and he said he was sure it was on the permanent cuspid. The root of the deciduous cuspid, which proves to be the tooth crowned, is extensively absorbed on its mesial side. A piece of broach was placed in the canal of the central for skiagraphing.

Fig. 9 shows the cast (c) of a girl's inferior jaw at fourteen in which no teeth have erupted back of the first bicuspid since the extraction of the first permanent molar, which was done by force when the patient was only six years of age, and was attended with great strug-

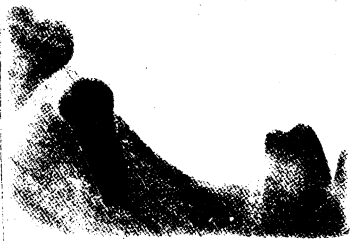
**Oases in  
Orthodontia.**



*Fig. 7.*



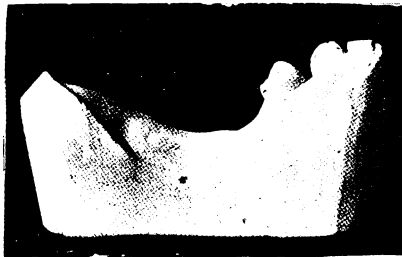
*Fig. 8.*



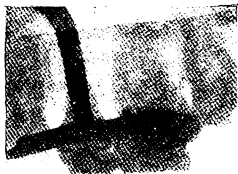
*9.a.*



*9.b.*



*9.c.*



*10 a*

*Fig. 9.*



*10.b.*

*Fig 10.*

gling, so I am told. The next view (a) is a skiagraph of the condition, and shows the position of the second bicuspid and second molar. The second bicuspid is lying on its side in the bone, about one inch back of its proper position, and the second molar is in proper position back of it. The treatment for correction is quickly suggested, and accordingly I have placed a rigid anchorage appliance on the anterior teeth, and have, after anestheizing and incising the gum tissue, inserted a tapped screw-post into the displaced second bicuspid. The third view (b) shows these appliances in position.

Fig. 10 shows good work (a) in moving teeth bodily where the anterior teeth had to be extruded to correct an intruded bite. It also shows (b) that the structure of the new bone is identical with that elsewhere. This case also demonstrates beautifully by comparison the improvement in skiagraphing when the penetration of the rays is properly adapted to the condition.

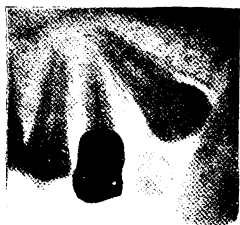
Fig. 11 demonstrates the value of the rays for locating teeth that are supposed not to have formed. The missing permanent cuspid is clearly seen (a) inlocked in the process. The next view (b) shows this same permanent cuspid regulated to its proper position and retained with platinum wire. The bone has filled in perfectly about its root, and its pericemental membrane appears to be of perfectly normal thickness except at the apex. This patient is a young lady about eighteen, and on account of the permanent laterals never having formed, this correction is of very great value to her, for her features have been very greatly improved by her dentist since he secured this information.

Fig. 12 (a and b) shows how much nature had corrected the position of a locked bicuspid in sixty days after it had been released by separating the teeth that are locking it. Test skiagraphs had first been made three months apart to ascertain whether Nature would make any progress in correcting it unaided, and it was found that she would not. This case is of special value because the patient suffered from a badly intruded upper bite partly caused by this condition, only one bicuspid having formed.

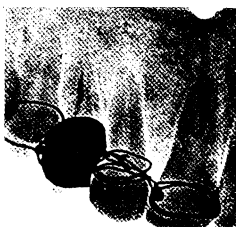
A very large variety of cases from orthodontia could be shown if we had time, but we must be content with but one or two examples from each branch.

#### Diagnosis of Abscesses.

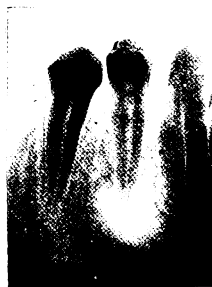
We will now study a few abscesses and their causes. Fig. 13 shows a typical appearance of one. Wherever there is a dead pulp in a tooth there is a break in the continuity of the pericemental membrane at the apex of the root, and more or less absorption of the bone at this point, and sometimes of the root also in cases of long standing.



11.a.



11.b

*Fig. 11.**Fig. 13*

12.a.



12.b.

*Fig. 12.**Fig. 15.*

14.a.



14.b.

*Fig. 14*

When a case presents with symptoms of a pericemental inflammation and the history is uncertain, as it usually is, the ideal procedure for both the patient and dentist is to first skiagraph the condition and find out the location and extent of the lesion and its cause. Then he can go directly to the trouble with a minimum of time and effort and treat the condition consistently and intelligently. He can take the skiagraph and develop the piece of bromide paper put in with the film all within one or two minutes. Fig. 14 shows two such cases. The first (a) shows the location of the lesion which is causing the neuralgia to be about the apex of the second bicuspid, and its cause is clearly evident, viz., that the root has only been filled about half way to the apex. This tooth did not respond abnormally to percussion. The second picture (b) shows a similar case, and the trouble is about the apex of the mesial root of the first molars which root is not properly filled to the apex, and the root is a little absorbed.

This condition of absorption of the apex obtains in almost all chronic abscesses whether blind or not, and, in my judgment, can usually be best treated by root amputation without extraction.

Fig. 15 shows a typical case indicating this treatment.

Fig. 16 shows a collection of abscesses demonstrating a variety of conditions. The first, marked a, is a typical blind abscess; b is a chronic abscess involving two teeth with some absorption of the roots; c shows much absorption of the apex, and the canal is very large, indicating that the tooth died before the apex was completely formed; d is an abscess just commencing; e shows a great deal of absorption of the apex, as does also f, in which the absorption is mostly on one side; g shows the break in the continuity of the pericementum over the apex where the root is even well filled, h shows the undeveloped or rather incompleated condition of the apex of a central in which the pulp is dead caused by fracture of the crown, i shows an abscess about a bicuspid root on which there is a gold crown. The root is seen not to be filled. j shows the extended thickening of the pericemental membrane.

We will now turn our attention to the dentists' graveyard, root canal fillings, where so many cover up defective, careless work, trusting it will never come to light, and often reminding the patient that when this tooth gives trouble again it will have to be extracted. Humanity should thank God for a new light that will go into these dark places and show up what is often criminally careless or wilfully bad work in filling roots. True, it is often impossible to properly fill roots, but if all were as well filled as possible, those imperfectly filled would be only those with so small a canal or so little of it unfilled that

**Root Canal  
Fillings.**



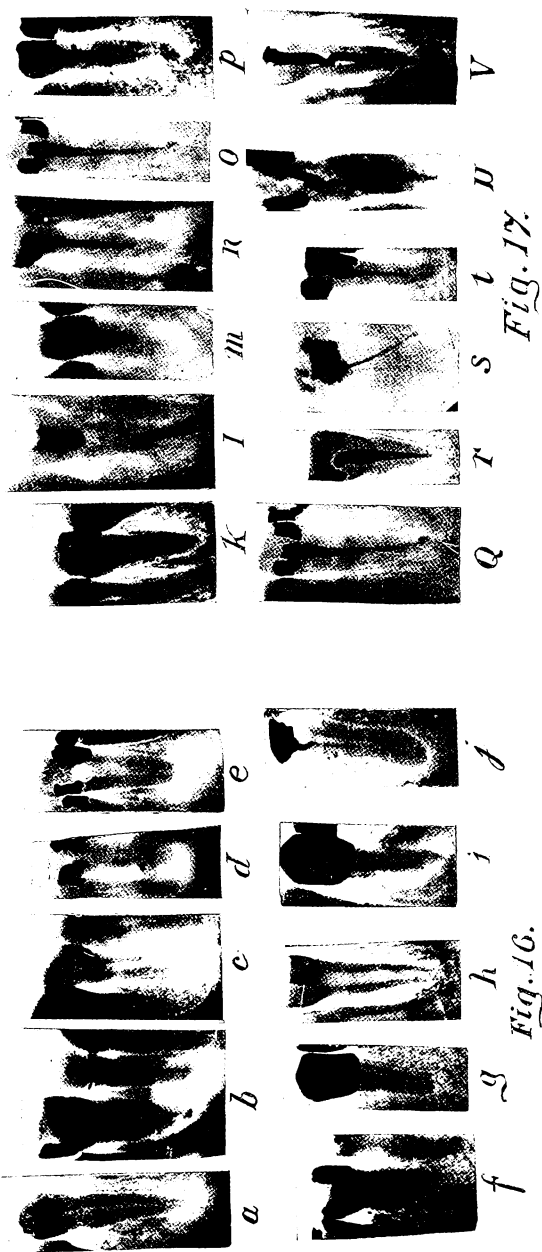


Fig. 17.

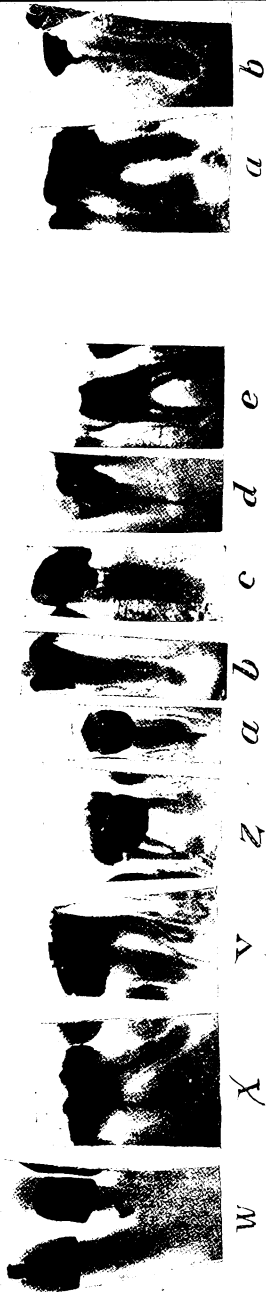


Fig. 18.

Fig. 19.

the woes of humanity from this source would be infinitely less than they are.

Figs. 17 and 18 show collections of good and bad, mostly the latter, however. In Fig. 17, k, m, n, p and t are filled only part way to the end of the canal, and all except t are abscessed. In t the canal is probably too small. l shows the root filling pushed through into the tissue. s shows a root filling through the side of a root, and u and v show changes in the shape of the root filling from the evaporation of chlorapercha. I know what these two are filled with, for I did them myself. r is as nearly perfectly filled as we can hope to accomplish. In Fig. 18, w shows the metal of a porcelain crown, and in the next tooth the wall of the root has been perforated and cement is forced through into the tissue, and has apparently caused absorption of the bone around it. In x we see another case of root filling through the side of a mesial root of an inferior molar. y shows another mesial root in which the filling only goes to the bend in the root, and the canal is open beyond that point. The root is abscessed. z shows open root canals and the floor of the pulp chamber decayed through and filled through to the bifurcation and the septum of bone between the roots is entirely absorbed. Probably the abscess at the end of each root has its drainage through this space. a shows a crooked root, which is well crowned, but the root filling goes straight through the apex, not following the curve. b is only filled part way, and, as usual, is abscessed. c is only filled part way and abscessed, but you will see it contains a broken twist drill, which has been there thirteen years, and the tooth giving trouble. d has a broken broach perforating its apex, which has caused the root to be absorbed. e shows unfilled root canals under amalgam.

When skiagraphing comes to be used generally even a little in dentistry there will be a great improvement in the work of filling root-canals.

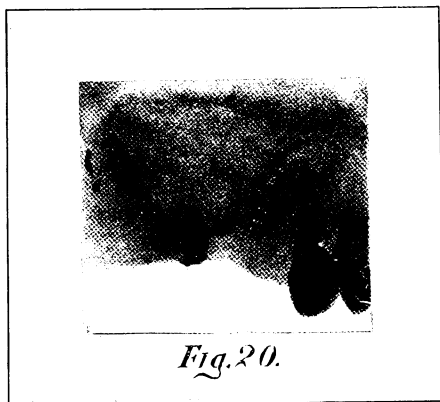
Two cases of excementosis are shown in Fig. 19, a and b.

#### **Antrum Cases.**

The range of usefulness in antrum examinations is very extensive. Foreign bodies as roots are clearly shown and the relations of the teeth to the antrum or abscess about them. The shape and position of the floor of the antrum is also clearly shown.

Fig. 20 is a case of chronic empyema of the antrum of an old lady. The case baffled skilful treatment, and finally the dentist in charge brought the case for skiagraphing. A root was found perforating the antrum, and was deeply buried in the tissue. It was evidently the cause of the trouble, for after its removal and securing drainage from the lowest point, the condition healed very promptly.

Fig. 21 is a case requiring drainage for empyema. The first picture (a) shows the most dependent point to be between the second bicuspid and the first molar. The second view (b) shows a platinum drainage tube in place properly. It enters from the buccal side of the alveolar ridge, and is attached to the second bicuspid. Fig. 22 shows another case where the most dependent point is between the first and second molars. This antrum is unusually level, and would drain freely at almost any point in the floor by tipping the head. It is very rare that the floor is level as in this case.



**Other Uses  
of  
Skiagraphy.**

Fig. 23 (a and b) shows two cases of pulp nodules. There are two large ones in the pulp of the molar. This lateral is perfectly sound, and it is very probable that it was extracted on account of this condition, which of course, was not recognized.

Fig. 24 shows a couple of cases of pyorrhoea so called. In the first (a) the entire mesial root is denuded except at its apex. This was treated by root amputation and with good success. The next (b) shows a pocket between the roots involving the septum of process. It was treated by thoroughly cleaning and scraping the bone with a bur and filling with gutta percha, as seen in the next (c). This treatment gives excellent results in this particular condition.

Fig. 25 gives an example of the use of the rays in opening through a filling or root-filling to an unfilled or partially filled root canal. The first view (a) shows this case as presented with a blind abscess at the apex and a gold filling. The root filling was done twenty years ago.



21a



21.b

Fig. 21.



Fig 22.



23 a

23b

Fig. 23.



24.a.



24.b.



24.c

Fig 24.



25 a.



25.b

Fig. 25.



25.c

Fig. 25.



26 a.



26.b

Fig. 26.



26.c.



27a.



27b.



27c.

Fig. 27.



Fig. 28.



29a.



29b.



29c.



29d.



29e.



29f.



29g.

Fig. 29.

You all know it is like trying to thread a needle at arm's length in the dark to drill straight through a hard substance to an open canal in the root.

Having the skiagraph before me I could tell by measurement when I had gone far enough, but could not tell the exact direction. To ascertain the relation of my drill to the canal two skiagraphs were taken at different angles with the drill in place, and were developed at once. As you see (b and c) my drill was only out of line about the width of the drill mesially, as seen by the center view, but twice that distance lingually. It only took a few moments to get this information, and, after getting it, I was able to go as directly and quickly to the unfilled pulp canal as if I could see it.

Fig. 26 shows the use of the rays in a branch of dental surgery, viz., root amputation. The first view (a) shows the condition before operating. There was a large abscess involving both roots. This had been skilfully treated, but could not be cured by ordinary means, because of the diseased condition of the roots of both teeth, which were accordingly amputated without extraction.

The second view (b) shows them after amputation, and the third view (c) shows the extent to which Nature has filled in this abscess cavity with new bone in thirty days.

Fig. 27 (a, b and c) shows the use of the rays in reaching an abscess through the root where the canal is too small to find. I drilled in the right direction as far as I knew I was safe, and put in a piece of broach and skiagraphed in two directions, as in Fig. 25. In this way I was able to drill the whole length of the tooth in safety, and, as you see by the final test, went straight through the apex and not through the side, as I would have been most certain to do without the help of the rays.

Fig. 28 shows a case of root implantation less than three years after the operation. The root had been crowned with a logan. By comparing the density of this root with the others you will observe that the lime salts have been almost entirely absorbed from it, which accounts for its lack of rigidity. Nature evidently considers it as an irritant and is trying to absorb it.

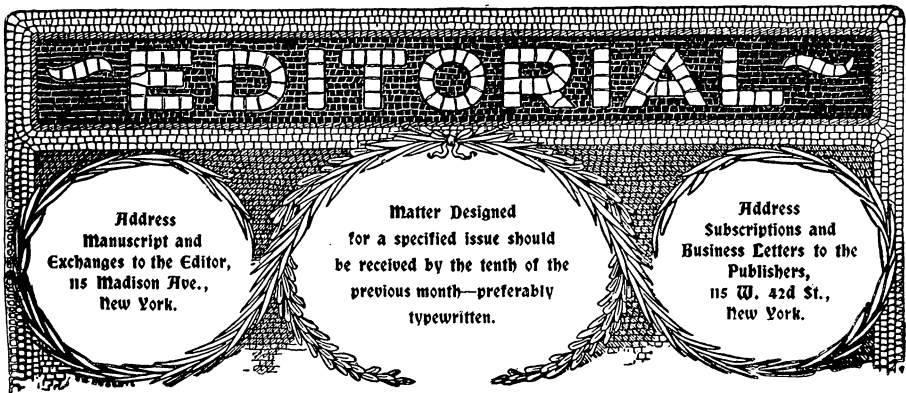
Fig. 29 (a, b, d, e, f and g) shows the results of bad or careless finishings of fillings under the gingivae at the cervical margins. In every case you see there is decay and absorption of the alveolar process between the teeth.

I must speak, though briefly, of a new method of localizing and of seeing in correct relation in skiagraphs, first suggested by Dr. Mackenzie Davidson, of London. It consists in taking two skiagraphs, just

as two are taken by a stereoscopic camera for viewing with the stereoscope. After the first exposure is made a second plate is used, and all conditions kept the same except that the tube is moved a distance of two and a half inches, or the distance between the eyes, and kept the same distance from the plate. When these pictures are mounted in this relation, and viewed in a stereoscope, we see the objects in their true perspective. For example, two views of Fig. 6 taken in this way show this condition in true perspective instead of flat, as you see it in this single picture.

This large subject of practical progress implies a discussion of many phases of this work of which we have not time to speak. The time of exposure has been reduced so that all conditions about the teeth can be skiagraphed in from one to six seconds. The registration on the film of the angles of incidence is a great advance. The classification of all conditions in terms of a standard of density and also a standard for the tube at the same time will help all workers in this field. For this see my communication before the Third International Dental Congress, Paris, 1900, which appears in the Transactions of that body. Very great improvement has been secured in the quality of film for our work, and also in the methods of development. Whether there has been improvement in the results or not I can leave you to judge from the pictures you see. In answer to the many inquiries I have to say that I very much regret the delay in the appearance of my book, which covers this subject in detail, but the many demands for papers and demonstrations on this subject have, with much time used for research, taken so much of my time that it could not be prevented. It will be published very soon.





## Nomenclature.

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In the May number we published a number of papers from prominent men, all of which discussed certain phases of the treatment of approximal cavities. As an adjective to describe the surfaces of teeth which lie contiguous to one another, it has been our rule to utilize the word approximal. In printing these papers, however, no editorial corrections were made, and the copy of the authors was followed so that each used the word of his choice. The result indicates that there is no universally adopted term, as there should be.

"Approximal" was used by Drs. Darby, Trueman, Rhein and Perry. In one instance, however, Dr. Rhein used the word "approximate," while Dr. Perry in one place spoke of "proximal cavities." Dr. Black used "proximate," while Drs. Johnson and Wedelstaedt say "proximal." Curiously enough, Dr. Wedelstaedt also speaks of "interproximate spaces."

We published once before, an editorial which discussed the use of these terms, but it seems about time that the Committee on Nomenclature of the National Dental Association should make some definite choice which may be followed by the rest of the profession, and we once again offer our views for the consideration of this committee and the profession at large. The following definitions are found in the lexicons:



Closely joined. In anatomy; used with reference to the contiguous surfaces of adjoining teeth.  
**Approximal.** *Century.*

Close together. Said of the surfaces of teeth. *Standard.*

That which is next to; contiguous. In dentistry pertaining to contiguous surfaces, as "approximal fillings." *Gould's Dictionary of Medicine.*

Near in position; near to; close together. *Century.*

Near in position, time, or character. *Standard.*

**Proximate.** Next; immediate; without the intervention of a third. *Century.*

Lying or being in immediate relation with something else. Next; as "a proximate cause." *Standard.*

Next. Immediate. *Proximate Cause.* The immediate cause of any change. *Proximate Principal.* Any substance whether simple or compound, chemically speaking, which exists under its own form in the animal solid or fluid, and which can be extracted by means which do not alter or destroy its chemical properties. *Gould's Dictionary of Medicine.*

**Proximal.** Nearest; next; in anatomy; that end of a bone, limb or organ which is nearest the point of attachment or insertion. Opposed to distant or external.

*Century.*

Relatively nearer the central portion of the body or point of attachment; opposed to distal. *Standard.*

Situated at or nearest to the attached extremity of an appendage, thus, the proximal end of the arm is at the shoulder. Opposite to distal. *Gould's Dictionary of Medicine.*

From this it would appear that the word proximal, used by Drs. Wedelstaedt and Johnson, is almost the worst choice. The word already has a definite meaning in anatomy. In the literature of our profession we speak of mesial and distal, because we attribute position to the teeth relatively to the median line, the junction of the maxillae. In general anatomy, however, the alternative terms are proximal and distal. Why, then, should dentists use the word proximal to describe surfaces of teeth, since by doing so we make ourselves unintelligible to anatomists and other surgeons?

Proximate, while perhaps convertible to our purposes, is a bad choice because it has a definite meaning in chemistry, an allied science, while in common parlance it describes the intangible rather than the tangible, as, "a proximate cause." Again, it would seem more correct to speak of proximate cavities on the same surface of one tooth, rather than to allude to proximate surfaces of adjacent teeth. In regard to ap-proximal, moreover, no other definition is offered, except as an adjective describing tooth surfaces, all the lexicographers agreeing. It would seem, therefore, unnecessary to coin or adapt another word.

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### **Meeting of the Southern Branch.**

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The following letter from Dr. Hinman, president of the Southern Branch of the National Dental Association, explains itself:

"My Dear Doctor: We of the 'South' are very much surprised to notice the position you have taken in your editorial in the *ITEMS OF INTEREST* in reference to the meeting of the Southern Branch of the National Dental Association at Nashville, Tenn., July 29, 1901.

"The meeting was placed at this time so that the members of the 'Southern Branch' could go straight on to the 'National' without having to return home. And we have arranged with the 'Southeastern Passenger Association' so that we can take up our certificates on the way back from Milwaukee, thus saving us a considerable sum of money.

"Of course, we all know down South that you are one of the men who are doing all in your power to break up the 'Southern Branch,' but you are only paving a way for the reconstruction of the 'Old Southern Dental Association.'

"I have already had several letters in reference to your editorial from our prominent southern men, and I feel sure that you would not feel complimented if you saw their contents. If you had been a little more careful and inquired about the facts before you wrote your editorial, I feel sure that your position would have been entirely different.

"If you will publish these expressions of the conditions under which we are meeting, I feel sure that it will do some good and counteract to a certain extent the feeling engendered by your editorial.

"The Southern Branch holds its meeting at this time for the especial purpose of trying to induce a number of its members to attend the meeting at Milwaukee."

Space has been given to the above, because I regret that the criticism which appeared in our last number should have been published. We are glad to let our readers know the true explanation of the choice of time and place for the meeting of the Southern Branch, which, however, might well have been given in the notice sent out by the secretary of the association and published in our last number, which, as will be observed, was restricted to only two lines.

In reply to the statement that I am doing all in my power to break up the Southern Branch, I have only to say that I am a southern man, conscientiously working for what I believe to be the best interests of the South, and at the same time for a real National Association.

R. OTTOLENGUI.





## H. J. McKellops.

In the death of Dr. H. J. McKellops, on April 23, 1901, St. Louis has lost the last of her pioneers in the profession of dentistry.

Dr. McKellops began the practice of the profession when scarcely half a dozen dentists had offices in St. Louis, his colleagues then being such men as Isaiah Forbes, Aaron Blake, Isaac Comstock, J. L. Clark, C. W. Spalding and H. E. Peebles. All of these had passed away when death closed the career of Dr. McKellops. He had been for fifty-six years an active practitioner. In that time his reputation had extended over the United States, he had contributed much to the material advancement of the profession of dentistry, and more than any one else in the city, perhaps, had been instrumental in bringing to it the prestige it enjoys as one of the learned professions.

Dr. McKellops was born at Saline, near Syracuse, N. Y., on August 31, 1823. His father, James McKellops, died before his son had entered his teens. In 1840 he came to St. Louis with his mother and sister, entering one of the public schools. Active and intelligent, he soon after obtained appointment as a messenger in the Missouri Legislature, using the money thus earned for tuition at the University of Missouri at Columbia, where he studied from 1842 to 1844. A course of bookkeeping in Jones Commercial College followed this schooling, after which he found employment in the City Register's office, where opportunity presented for forming a wide circle of acquaintances, valuable afterwards when he entered the practice of dentistry.

He was drawn to the study of medicine in 1846 and 1847 at the old St. Louis Medical College, of which Dr. Charles A. Pope was dean. For the next six years he attended many of the lectures, but never took the degree of M. D.

Through the persuasion of his brother-in-law, Dr. George Silvers, a dentist, he was drawn from medicine to the practice of dentistry, although he afterwards enjoyed the distinction of having delivered the first white child born in Montana. Natural ingenuity and a love of the mechanical arts soon made him an expert operator, and soon after opening his first office he commanded a practice of the highest class.

In 1855 the degree of D.D.S. was conferred on him by the Ohio College of Dental Surgery in recognition of his skill and services to

the profession, his fame already having extended through Missouri and eventually through all the States of the Union. A sojourn in London and Paris from 1863 to 1865 made him known abroad as well. In Paris and London in 1864 he introduced the use of the mallet in dentistry before the Odontological Society of London. Dr. McKellops also introduced in St. Louis the use of continuous gum work, invented by Dr. John Allen, of New York. In his profession he was studious, inventive in practice and always to the front in every step of progress in dental surgery. The Doctor was a subscriber to all the dental periodicals, and possessed the most extensive dental library in the world.

A loving cup was left by him on which appears the following: "Presented to Dr. H. J. McKellops by the First District Dental Society of the State of New York, as an expression of the high esteem and as a token of its appreciation of the inestimable services rendered by him as Supervisor of Clinics at the Annual Meeting, New York City, January 21, 1891."

The St. Louis Dental Society on March 24, 1900, tendered Dr. McKellops a banquet as a token of esteem and love.

He is admitted to have done more than any other dentist in St. Louis to educate the better class of the public up to an appreciation of the importance of the care of the teeth, the value of high class dentistry in contrast to low class, and an acquiescence in a proper remuneration for such services. His influence in these directions still is felt, and will continue to be felt.

Personally, Dr. McKellops was a man of high ideals, sociable and warm-hearted. His sociability found expression in the field of his profession, in the organization of dental societies and associations in the proceedings of which he always took a leading part. He was one of the organizers of the St. Louis Dental Society, founded on December 9, 1856, and in 1879 served as its president. He helped organize also the Western Dental Association in 1860, was first president of the Missouri State Dental Association in 1865, served as president of the American Dental Association in 1878, and in 1884 was elected president of the Southern Dental Association. He was also a constant attendant of the Mississippi Valley Association of Dental Surgeons.

In social life, no less than in his profession, Dr. McKellops was popular, and he was a particularly welcome guest at social gatherings, because of his high intelligence and brilliant powers of entertaining.

Dr. McKellops also had a military side to his career. He was Captain of the St. Louis Cadets, commissioned by General Edwards in 1842, and in 1845 became a Captain in the St. Louis Legion. In 1846 he commanded the Morgan Riflemen in the Legion's six months' serv-

ice in the Mexican War, making the noted six months' expedition under Colonel Alton R. Easton, which included New Orleans, Brazos, Santiago and up the Rio Grande to Matamoras. At the organization of the St. Louis National Guards in the fifties, he was enrolled as a member, and served in the riots of those days. Afterwards as Assistant Adjutant General of the First Brigade in 1858, he marched across the State with the expedition under General D. M. Frost, to put down the invasion of the "Bushwhackers" and "Jayhawkers" who then were ravaging the western counties of Missouri.

The observations of the necessity of dentists in the army no doubt prompted Dr. McKellops to introduce a resolution at a meeting of the Western Dental Society, held in Quincy, Ill., on July 21, 1858, to the effect that a committee be appointed to memorialize Congress on the necessity of appointing dentists to be attached to the regular army. The resolution was adopted and a similar resolution was passed by the American Dental Convention in August the same year, being introduced by Dr. McKellops.

Dr. McKellops married Miss Annie Gower of Tennessee, on April 4, 1849. Eight children were born—five sons and three daughters. Those now living are Dr. Henry L. McKellops and Mrs. Josephine Bouvier, of San Francisco; Linton J. McKellops and Dr. Leo G. McKellops, of St. Louis; Gerald G. McKellops, of Cincinnati. His sister, nearly ten years his senior, still survives and resides in New York.

JOHN G. HARPER,  
BURTON L. THORPE,  
EDWARD H. ANGLE,  
Committee.

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### **Society of Dental Science of St. Louis.**

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At a special meeting of the Society of Dental Science of St. Louis, held Monday evening, April 29, 1901, the following resolutions in memory of Dr. H. J. McKellops were unanimously adopted:

Whereas, In the death of Dr. H. J. McKellops the dental profession has sustained a great loss which will be felt throughout the length and breadth of two continents, and

Whereas, The members of the profession in St. Louis, and especially of this Society who best knew the depth of his friendship and felt the inspiration of his example, will mourn his loss most deeply; therefore, be it

Resolved, That the Society of Dental Science of St. Louis hereby expresses its full appreciation of the valuable services rendered our profession by Dr McKellops during his long and active life; and

Resolved, That in recognition of his distinguished services and the great honor in which he held his profession, a suitable biographical memorial be prepared and framed, with his photograph, and hung in the rooms of this Society; and

Resolved, That a copy of these resolutions be sent to the family and to the dental journals and spread upon the minutes of this Society.

EMMA EAMES CHASE,

HERMANN PRINZ,

B. L. LISCHER,

A. H. FULLER,

Committee.

### **Dr. Theodore Francis Chupein.**

We deeply regret to announce the death on March 23, 1901, of Dr. Theodore Francis Chupein, editor of *The Dental Office and Laboratory*.

Dr. Chupein was born in Charleston, S. C., on the 7th of September, 1830, where he received his education and lived until 1876.

At the age of 17 years, he was placed by his father with Dr. Wm. S. Monefelt for the study of dentistry. Remaining with his tutor from the year 1847 until 1852, he was principally engaged in the laboratory and doing all the artificial work of his preceptor. In 1852 he commenced practice for himself, but his father, dying the year after, his practice was interrupted for two years.

With Dr. J. B. Patrick and W. S. Brown, of Charleston, and Dr. Wm. Reynolds, of Columbia, S. C., Dr. Chupein was an active spirit in the formation of the South Carolina State Dental Association, and was selected its first secretary and afterwards its president.

He was almost wholly instrumental in the establishment of the Charleston Dental Association, being a leader in this organization and giving all his efforts to its advancement.

He devoted all his time, with little intermission, to his profession, with the exception of the duration of the war, when he served in the Army of the Southern Confederacy. Even then he practiced dentistry, for being for a year or more doing garrison duty, he brought his case of instruments in camp and filled teeth for the officers and men who applied to him for this service. At this time, being out of gold foil, he purchased an ounce of this from Messrs. Brown & Hape, of Atlanta, Ga., and paid them *fifteen hundred dollars* for it.

At the close of the war he came to Philadelphia and obtained employment with Dr. J. D. White, with whom he remained until 1866, when he returned to Charleston, S. C., and recommenced the practice of dentistry.

In 1872 he came north and graduated as Doctor of Dental Surgery from the Pennsylvania College of Dental Surgery, after which he again returned to Charleston.

In the latter part of 1875 a disastrous fire so crippled him by the destruction of his office, his instruments, his library and a dental depot which he had established, that early in the following year he moved with his family to Philadelphia, and at that time opened his office at 1408 Pine street.

Shortly after his arrival in Philadelphia he became a member of the Pennsylvania Association of Dental Surgeons, and in 1877 he was elected its secretary, which office he has held continuously since.

He also connected himself with his old Alma Mater, the Pennsylvania College of Dental Surgery, and occupied the position of one of its clinical instructors.

He was a member of the Odontographic Society, the Odontological Society of Pennsylvania, and was made an honorary member of the Academy of Stomatology.

For some years he undertook the section of the "Practical Place" in the "old series" of *The Dental Office and Laboratory*, and in 1887 he assumed the editorial department of the "New Series" of the journal, which he filled up to the time of his death.

He was also a contributor to the *American System of Dentistry*, a work edited by Professor W. F. Litch.

He took an active part in the celebration of what was termed "The Golden Anniversary of the Pennsylvania Association of Dental Surgeons," which was the commemoration of the fiftieth anniversary of the organization of that society and the inception of dental education in Pennsylvania; an event which was celebrated on the 16th of December, 1895, by a banquet at the Continental Hotel. A full historical account was published in the July (1896) issue of *The Dental Office and Laboratory*.

He was married in 1858 to Virginia M. Pohl, of Philadelphia. He had six children. His widow and three children survive him.

His long and active life was closely identified with every movement in the advancement of dentistry, and his death comes as a severe loss to the profession at large, as well as to his many personal friends—who join us in extending to his bereaved family our deepest sympathy in their affliction.





### **National Society Meetings.**

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National Dental Association, Milwaukee, Wis., August 6.

National Association of Dental Examiners, Milwaukee, Wis., August 2.

National Association of Dental Faculties, Milwaukee, Wis., August 1.

### **State Society Meetings.**

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California State Dental Association, Los Angeles, July 9, 10, 11, 12.

Colorado State Dental Association, Denver, July 9, 10, 11.

Delaware State Dental Society, Wilmington, June 5.

District of Columbia Dental Society, Washington, December.

Georgia State Dental Society, Macon, June 11, 12, 13, 14.

Maine Dental Society, Old Orchard Beach, July 16, 17, 18.

Massachusetts Dental Society, Boston, June 5, 6.

Minnesota State Dental Association, Duluth, August 1, 2, 3.

Mississippi Dental Association, Yazoo City, August 1, 2, 3.

Missouri State Dental Association, Sedalia, July 9, 10, 11, 12.

New Jersey State Dental Society, Asbury Park, July 17, 18, 19.

North Carolina State Dental Society, Morehead City, June 26, 27, 28.

Ohio, Michigan and Indiana State Dental Associations, Indianapolis, June 4, 5, 6.

Ohio State Dental Society, Columbus, December 3, 4, 5.

South Carolina State Dental Association, Charleston, June 4.

South Dakota State Dental Association, Sioux Falls, June 11, 12, 13, 14.

Tennessee State Dental Association, Nashville, July 29.

West Virginia State Dental Society, Mannington, August 29, 30.

### **National Association of Dental Faculties.**

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The next meeting of the National Association of Dental Faculties will be held in Milwaukee, Wis., Friday, August 2, at 10.30 a. m.

The Executive Committee will meet in session Thursday, August 1, at 2 p. m. According to rule, all colleges shall be expected to have a copy of their annual announcement for the coming session in the hands of the Executive Committee at this time.

S. W. FOSTER, Secretary.

Atlanta, Ga.

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### **The National Association of Dental Examiners.**

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The nineteenth annual session of the National Association of Dental Examiners will be held at the Plankinton Hotel, Milwaukee, Wis., beginning Friday, August 2, and continuing in session until adjournment. The hotel rates will be: American plan, without bath, \$2.50 to \$4.50 per day; with bath, \$3.50 to \$5 per day. A fare of one and one-third has been arranged for on the Lehigh Valley Railroad, good from July 31 to August 12, inclusive, \$26.07 for the round trip. Trains leave New York 8 a. m., 10 a. m., 12 m., and leave Philadelphia 9 a. m., 10.30 a. m., 12.30 a. m., connecting at South Bethlehem with main line; arrive at Buffalo 9.20 p. m., 9.35 p. m., 9.55 p. m., in time for connection with Chicago Express, leaving at 10 p. m., arrive at Chicago next day 1.28 p. m.; leave Chicago at 3 p. m. and arrive at Milwaukee 5 p. m. Buy single through ticket and take agent's receipt.

CHAS. A. MEEKER, D.D.S., Secretary.

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### **South Dakota Board of Dental Examiners.**

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The next meeting of the South Dakota Board of Dental Examiners will be held at Vermillion, S. D., July 1.

Applicants for examination should bring their operating tools and all materials necessary for filling with gold, etc., and such other work as the board may require.

G. W. COLLINS, Secretary.

Vermillion, S. D.

### **Rhode Island Board of Registration in Dentistry.**

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A meeting of the Rhode Island Board of Registration in Dentistry for the examination of candidates will be held at the State House in Providence from June 12 to 15, inclusive, beginning each day at 9 a. m.

The theoretical examination will include anatomy, physiology, histology, bacteriology, chemistry, pathology, materia medica, therapeutics, operative and prosthetic dentistry, crown and bridge work, metallurgy, orthodontia anaesthesia and surgery.

Each candidate must come prepared with rubber-dam, gold and instruments to demonstrate his skill in operative dentistry. Candidates are expected to provide their own patients, but by giving two weeks' notice the board will supply them as far as possible.

All applications, together with the fee of ten dollars, must be filed with the secretary of the board before June 1, 1901, as no application for this meeting will be received after that date.

D. F. KEEFE, D.D.S., Secretary.

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### **New Jersey State Dental Society.**

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The thirty-first annual session of the New Jersey State Dental Society will be held in the Auditorium, Asbury Park, N. J., commencing Wednesday, July 17, 10 A. M., and continuing in session Thursday and Friday.

The "Columbia" adjoining will be the headquarters, with rates of \$2.50 and \$3.00 per day.

To the busy practitioner who desires to witness the latest and best in clinical dentistry—"come." Fifty clinics.

The best and newest efforts in the science of dentistry—come and hear five papers read. For a veritable museum of the latest in electrical appliances, mechanical tools, the chairs, instruments and accessories of the modern dental office. Come and see us and mark the days off now. The time will not be wasted; you will see the contents of not only one dental depot but of all the country. The best efforts of the inventions pertaining to our profession up to date. The city dentist as well as the one from the cross road can all see and learn something.

CHARLES A. MEEKER, D.D.S., Secretary.

29 Fulton St., Newark, N. J.

### **Massachusetts Board of Registration in Dentistry.**

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A meeting of the Massachusetts Board of Registration in Dentistry, for the examination of candidates, will be held in Boston, Mass., June 19, 20 and 21, 1901.

Candidates who have applied for examination will report to the secretary Wednesday, June 19, at 9.30 a. m., at Harvard Dental School Infirmary, North Grove street, and come prepared with rubber-dam, gold and instruments, to demonstrate their skill in operative dentistry. Any one who wishes may bring his patient. So far as possible patients will be furnished. The board in every instance selects the cavity to be filled.

The theoretic examination—written—will include operative dentistry, prosthetic dentistry, crown and bridge work, orthodontia, anatomy, histology, surgery, pathology, materia medica, therapeutics, physiology, bacteriology, anesthesia, chemistry and metallurgy, and will be held at Civil Service Rooms, State House, from Thursday, June 20, at 9.30 a. m., until Friday evening, June 21.

All applications, together with the fee of twenty dollars, must be filed with the secretary of the board on or before June 12, as no application for this meeting will be received after that date.

Application blanks may be obtained from the secretary.

Candidates who have taken an examination, and failed, who desire to come before the board again at this meeting are not required to fill out a second application blank, but must notify the secretary as above in order to be registered. The fee for third and subsequent examination is \$5.00.

G. E. MITCHELL, D.D.S.

Secretary.

25 Merrimack street, Haverhill, Mass.

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### **Colorado State Board of Dental Examiners.**

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The Board of Dental Examiners for the State of Colorado will meet in Denver, June 3, 1901, at 10 a. m., to examine applicants for license.

In addition to the usual written and oral examination, candidates must supply their own patients, and come prepared with all necessary instruments, rubber dam and gold, to perform practical operations under the supervision of the board, which will pass on suitable selections of cavities.

H. F. HOFFMAN, Secretary.

611 California Building, Denver, Colo.

### **Vermont Board of Dental Examiners.**

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A meeting of the Vermont Board of Dental Examiners will be held at the Pavilion Hotel, Montpelier, Wednesday, July 10, at 2 p. m., for the examination of candidates to practice dentistry.

The examination will be in writing and will include anatomy, physiology, histology, bacteriology, chemistry, materia medica, metallurgy, pathology, therapeutics, surgery, anaesthesia, operative and prosthetic dentistry, together with an operation in the mouth.

Candidates must come prepared with instruments, rubber dam and gold; also candidates will be required to take an impression, articulate and set up a set of artificial teeth.

Applications, together with the fee, ten dollars, must be filed with the secretary on or before July 1.

GEORGE F. CHENEY, Secretary.

St. Johnsbury, Vt.

### **Missouri State Dental Association.**

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The Missouri State Dental Association will hold its thirty-seventh annual session at Sedalia, July 9, 10, 11 and 12. A cordial invitation is extended to all reputable practitioners to be present and participate in the proceedings.

Hotel and railroad rates have been secured.

The following is a partial list of the essays and clinics:

#### **Essays.**

1. Dr. F. F. Fletcher, St. Louis, Mo.—President's address.
2. Dr. Truman W. Brophy, Chicago, Ill.—“Surgical Treatment of Cleft Palate.” Illustrated with stereopticon.
3. Dr. W. V.-B. Ames, Chicago, Ill.—“Utilization of Atmospheric Pressure With and Without Air Chambers.”
4. Dr. Austin C. Hewett, Chicago, Ill.—“Proof of the Value of Analgesics and Anaesthetics in the Dental Office.”
5. Dr. E. Bergstrasser, Abilene, Kan.—“Science and Imagination.”
6. Dr. L. W. Nevins, Chicago, Ill.—“The Generation and Administration of Nitrous Oxide Gas.”
7. Dr. C. D. Lukens, St. Louis, Mo.—“Orthodontia.” Illustrated by stereopticon.
8. Dr. Wm. D. Hamisfar, Warrensburg, Mo.—“Diagnosis from a Microscopic or Biological Standpoint.”
9. Dr. Walter M. Bartlett, St. Louis, Mo.—“Our State Law.”

10. Dr. W. L. Reed, Mexico.—“Immediate and Bloodless Removal of the Pulp.”
11. Dr. B. L. Thorpe, St. Louis, Mo.—“The Painless Separation of Teeth.”
12. Dr. J. W. Hull, Kansas City, Mo.—“Dentistry as a Fine Art.”
13. Dr. A. Tschirner, St. Louis, Mo.—“Detrimental Effects of Soluble Organic Substance in Dental Cements.”
14. Dr. Geo. H. Gibson, St. Louis, Mo.—“Oral Hygiene.”
15. Dr. H. E. Zorn, De Soto, Mich.—“Habit.”
16. Dr. M. C. Marshall, St. Louis, Mo.—“Some Clinical Experience in Pyorrhea.”
17. Dr. T. F. Bassett, St. Louis, Mo.—“Porcelain Work.”
18. Dr. Oscar Hammer, St. Louis, Mo.—“Treatment of Pulpless Teeth.”
19. Dr. T. W. Arnold, Butler.—Subject to be announced.

### **Clinics.**

1. Dr. W. V. B. Ames, Chicago—
  - a—“The Utilization of Atmospheric Pressure With and Without Air Chambers.”
  - b—“Cement Clinic.”
2. Dr. D. O. M. Le Cron, St. Louis—
  - a—“The Peck Method of Porcelain Inlays.”
  - b—“Porcelain Crown and Bridge Work.”
3. Dr. E. Bergsurasser, Abilene, Kan.—“Filling vs. Crowning.”
4. Dr. J. D. Patterson, Kansas City.—“The Ideal Base Plate.”
5. Dr. Truman W. Brophy, Chicago.—“Surgical Clinic.”
6. Dr. T. L. Pepperling, St. Louis.—“Banding Logan Crown.”
7. Dr. Austin C. Hewett, Chicago.—“Combination Gold and Amalgam Filling at one Sitting.”
8. Dr. W. L. Reed, Mexico.—“Pressure Anaesthesia for Pulp Extirpation.”
9. Dr. W. L. Nevins, Chicago.—“Administration of Nitrous Oxide Gas and Extracting.”
10. Dr. Otto J. Fruth, St. Louis.—“Seamless Crowns and Inlays.”
11. Dr. S. C. A. Rubey, Clinton.—“Davis Crown.”
12. Dr. W. B. Stanza, St. Louis.—“Richmond Crown.”
13. Dr. J. T. Hull, Butler.—“A Method of Taking an Impression.”
14. Dr. J. F. Austin, St. Louis.—“Ideal Cavity Preparation for Gold.”
15. Dr. L. E. Jenkins, Fredericktown.—“Combination Filling, Gold Predominating.”
16. Dr. D. J. McMillen, Kansas City.—Subject to be announced.
17. Dr. A. J. Prosser, St. Louis.—“Table Clinic. The Blending of Gold and Platinum in Fillings.”

18. Dr. E. N. Le Veine, Kansas City.—“Porcelain Crown.”
  19. Dr. C. D. Lukens, St. Louis.—“Orthodontia.”
  20. Dr. J. S. Bridgeford, Macon.—“Extracting Molar Roots.”
  21. Dr. W. W. Gardiner, St. Louis.—“A Method of Contouring Crowns.”
  22. Dr. H. A. Cress, Warrensburg.—“Gold Filling.”
  23. Dr. Samuel Williams, St. Louis.—“A Method of Packing Two Colors of Vulcanite.”
  24. Dr. U. S. Hougland, Kansas City.—“Porcelain Bridge Work.”
  25. Dr. A. Tschirner, St. Louis.—“Some New and Useful Things.”
  26. Dr. J. T. Richardson, Kansas City.—“Gasoline Blow Pipe.”
  27. Dr. P. Holm Morrison, St. Louis.—“Removable Root Canal Filling with Silver Wire.”
  28. Dr. J. B. Vernon, St. Louis.—“Gold Filling—Vernon’s Gold.”
- B. L. THORPE, Corresponding Secretary, St. Louis, Mo.  
F. M. FULKERSON, Chairman Executive Committee, Sedalia, Mo.

### **Connecticut Odontological Society.**

A meeting was held in Hartford, Connecticut, February 12, to take into consideration the matter of forming a new State dental society.

A temporary organization was formed and a committee of three was appointed to draw up a Constitution and By-laws, to be reported at a subsequent meeting to be called at the Tontine Hotel, New Haven, March 12.

Accordingly forty members of the profession met at New Haven and perfected the organization which was called the “Connecticut Odontological Society.”

The following officers were elected:—

Dr. W. H. Pomeroy, Hartford, President; Dr. S. L. G. Crane, Hartford, Vice-President; Dr. C. L. Howgate, Greenwich, Secretary; Dr. M. C. Hitchcock, Ansonia, Treasurer. Executive Committee—Dr. J. H. Mallery, Hartford; Dr. L. D. Monks, New Haven; Dr. J. E. Beardsley, Bridgeport. Auditing Committee—Dr. E. S. Darner, Bridgeport; Dr. D. R. Beebe, Bridgeport; Dr. L. W. Coley, New Haven. Committee on Membership—Dr. F. D. Clark, Hartford; Dr. P. J. Dahlen, Hartford; Dr. J. H. Mallery, Hartford.

The meeting was enthusiastic and harmonious throughout, and there is promise of forming a large society on a broad and liberal basis.

The next meeting will be held at Bridgeport, June 4, 1901.